THE LANCET.

VOL. II.] LONDON, SATURDAY, AUGUST 7. [1829-30.

LECTURES ON SURGERY, MEDICAL AND OPERATIVE,

DELIVERED AT

St. Bartholomew's Hospital;

BY MR. LAWRENCE.

LECTURE LXX.

Diseases of the Eye, continued.—Chronic Ophthalmia; Treatment.— Inflammation of the external proper Tunics; Treatment.—Inflammation of the internal parts; Treatment.—Inflammation of the Chambers; Treatment.—Hypopium; Treatment.—Iritis; Idiopathic, Syphilitic, and Arthritic; Treatment.—Retinitis; Treatment.—Inflammation of the Vitreous Humour, Retina, and Choroid Coat, in elderly persons; Treatment.—Acute and Chronic Glaucoma; Treatment.—Catarrhal Rheumatic Affection; Treatment.—Ophthalmitis; Treatment.

Chronic Ophthalmia.—When active inflammation of the *eye* has been neglected or treated inefficaciously,—when a patient has resumed too soon the use of the organ, or has not paid proper attention to diet and general management, the disorder is protracted, it lasts a considerable time; it becomes what in technical language we call *chronic inflammation—chronic ophthalmia.* The symptoms are not so troublesome to the patient as during the acute stage of the inflammation; there is less pain, less uneasiness; the blood-vessels of the organ are distended; the eye is incapable of making its usual exertions, and waters and feels uneasy when the patient attempts to employ it; it appears to him to be weak, he wants something to strengthen it, and from the general use of this expression, the patient is apt to employ tonic remedies, or is led to suppose that there is some actual weakness present, which it is necessary to remove by stimulating local applications and internal treatment of a similar character.

Chronic inflammation of the eye is, in fact, essentially the same kind of disturbance as the acute, except that it is less violent, and that the disturbance is not so considerable.

Treatment.—The first point, therefore, in treating a case which comes under the description of chronic ophthalmia, is to remove the inflammatory state; and this must be accomplished by means of the same character as those which we use in combating acute inflammation. It is often necessary to bleed locally, particularly by cupping; and sometimes in a case which, from its duration, must be called chronic ophthalmia, it is necessary even to bleed generally, and to use other parts of the antiphlogistic treatment. It has been very frequently the practice in cases of inflammation of the eye of some duration, to apply stimulating or astringent remedies, under the notion of giving tone or imparting strength to the blood-vessels, and removing the weakness which is supposed to be occasioned by permanent distention, produced by the inflammation. One application of this kind has come into very general use, in consequence of its having been employed and recommended by a gentleman possessing great knowledge in this department (I mean the late Mr. Ware); and that is, letting fall into the eye a drop of the proper vinum opii—a vinous tincture of opium—the tinctura thebaica of the *old* London Pharmacopœia, the only liquid preparation of opium in that pharmacopœia, and containing double the quantity of opium which is contained in the tincture of the present Pharmacopœia. The mode was, to apply a drop of this between the palpebræ once or twice in the course of the four-and-twenty hours; indeed Mr. Ware applied it very generally in the more acute, as well as in the chronic forms of the affection. Now in instances of inflammation of the external tunics of the eye, where by active treatment we have removed the more striking symptoms of the inflammation, where the eye is in that state in which it pours out water when it is exposed to the air, and in which there is a fulness of the blood-vessels and uneasiness, the patient experiencing no other incon-

venience, the vinum opii may be dropped into the eye once or twice a day, without any disadvantage, and sometimes with much benefit.

I have mentioned the use of *astringents* where the mucous membrane is the seat of inflammation. In the catarrhal ophthalmia, purulent inflammation, purulent ophthalmia of newly-born children, acute gonorrhœal inflammation, and that subsequent state in which the mucous membrane lining the eyelids becomes granular (the mechanical irritation of those granulations producing vascularity and nebulous opacity of the cornea), the employment of astringents after the use of all such means as are calculated to reduce inflammation, may be beneficial. A solution of the nitrate of silver may be tried, and the undiluted liquor plumbi acetatis is sometimes considered the best. But it is sometimes necessary to go beyond this—to invert the eyelids more especially, and to rub the internal surface with the sulphate of copper in substance. This is a remedy which you are not to apply very frequently, and even then it is necessary to absorb, with lint, the moisture from the eyelid, before you replace the lid on the eye. In chronic ophthalmia, counter-irritation is serviceable; blistering behind the ear, or in the nape of the neck, friction with the tartar-emetic ointment, and, in some instances of obstinate chronic inflammations of the eye, more especially in those where there is some change from deposition into the structure, great advantage is produced by a seton in the temple, which you may make by pinching up the skin, carrying a knife through it, and introducing the seton. This mode of counter-irritation is very useful in the treatment of obstinate inflammation of the eye of a chronic kind.

Inflammation of the external proper Tunics,—which I mentioned to you in the last lecture, that is, inflammation of the sclerotica, in which the cornea is often involved, and the iris sometimes participates, may be produced by external causes. If a foreign substance, for instance, lodges in the cornea,—if a smith, for example, in striking a hot iron, knocks off a portion, and it becomes fixed and impacted in the cornea, it will produce inflammation of the cornea, and a corresponding inflammation of the sclerotic coat; and other kinds of wounds or injuries will produce the same sort of mischief. But we see inflammation of the sclerotica most frequently as a form of rheumatism affecting the eye; that is, it occurs in persons of a rheumatic constitution. The sclerotica is of a fibrous texture, and analogous, therefore, to some of those textures of the joints which are the seat of the affection; hence inflammation of the sclerotica is sometimes described under the epithet of *rheumatic ophthalmia*. This is a form of disease which we frequently observe in conjunction with, or in succession to, gonorrhœa. In individuals of a rheumatic constitution, in whom this affection of the external proper tunics of the eye takes place, either with gonorrhœa or rheumatic affections of the joints, which themselves occur under gonorrhœal inflammation, you have this affection with inflammation of the urethra and purulent gonorrhœal discharge. The affection of the external proper tunics of the eye, and inflammation of the synovial membrane of the joints, are sometimes combined together, sometimes they occur in succession, and sometimes they alternate, that is, you have the disease passing from the one to the other organ or texture, so that each part is affected more than once in the same instance.

I may here mention to you, that the eye is liable to three forms of inflammation in conjunction with gonorrhœa; in the first place, it is liable to a mild inflammation of the mucous membrane, something similar to that which I described in speaking of catarrhal ophthalmia; it is liable to a more dangerous inflammation—acute gonorrhœal ophthalmia; it is also liable to this inflammation of the external proper tunics, that is of the sclerotica, in which the cornea is affected, and the iris is sometimes involved.

Treatment.—The treatment of this affection, when it occurs in rheumatic subjects, or in conjunction with gonorrhœa, is essentially the same with that which I have mentioned before. You must, in the first instance, adopt an antiphlogistic treatment, according to the symptoms and general state of the constitution, and then it is advantageous to resort to a moderate use of mercury, employing calomel and opium if the sufferings should be considerable, or Plummer's pill, four or five grains night and morning, together with aperients and blisters. You sometimes find it necessary in these cases to employ mercury so actively as to affect the system.

Inflammation of the Internal Parts of the Eye.—I proceed next to speak of inflammation of the internal parts of the eye. The chambers which contain the aqueous humour form a point of transition between the external and internal parts of the eye, for the concavity of the cornea constitutes a portion of those chambers, while its convexity forms a part of the external surface. The sclerotica, the cornea, and the iris, appear to be closely connected in a pathological point of view, as well as in their ordinary vascular supplies; so that you do not find one of those parts to be considerably affected, without the others participating in the affection. If any cause of inflammation affect the cornea, the vessels of the sclerotic

coat become distended; when inflammation of the iris takes place, the vessels of the sclerotica also become filled; so that, although we divide in our pathological considerations the external from the internal parts of the eye, you must be aware that there are points of connexion between them, some of the external and some of the internal parts occasionally suffering together.

Inflammation of the Chambers.—The chambers which contain the aqueous humour are liable to inflammation; this is an affection which is commonly seen in young subjects. When the complaint is fully developed (I speak of subjects of from two or three to seven or eight years of age), it exhibits the following appearances: the cornea is dull and hazy, and sometimes slightly nebulous; the sclerotica is red, particularly round the margin of the cornea, where it exhibits a zone of a pink or violet tint; the iris is altered in its colour, and in blue or greyish eyes it assumes a reddish tint, particularly on its pupillary margin; a purulent matter, or a something which wears the appearance of pus, is also secreted from the inflamed surface, and sinks to the bottom of the anterior chamber, where it forms into a small collection, in shape somewhat resembling the white mark at the root of the nail. A little pain is experienced in the eye and in the head at the commencement of this affection; but at the time of its full development, and when it presents the characters I have mentioned, we find that the child hardly complains of pain, and exhibits no intolerance of light. At the first view of an eye thus diseased, you would suppose that the affection was serious, and would ultimately destroy the sight; it is not however of a dangerous nature, but yields readily to a simple course of treatment, and terminates without any ultimate injury to vision.

Treatment.—In the first instance you employ a few leeches, and purge the child; then exhibit mercury—a grain of calomel, with two or three grains of antimonial powder every four or five hours; or four or five grains of hydrargyrum cum creta two or three times a day; in this way the matter becomes absorbed, and the cornea clear, and the natural appearance of the eye, and perfect vision, are restored.

Hypopium.—The deposition of matter into the anterior chamber takes place under several circumstances, and has been technically called hypopium or *hypopyon*, a Greek term. It has been spoken of in works on the eye, as if it were a particular and distinct disease. Now *hypopyon* is not to be regardedas a distinct disease, any more than the presence of matter is to be considered a distinct disease in any other inflamed part in the body. The presence of matter in the anterior chamber of the eye, is the result of inflammation attacking some part of the contents of the chamber; it is the result of inflammation arising to a certain point. Matter is deposited then on the surface which secretes the aqueous humour; it is deposited in the anterior chamber in consequence of inflammation—inflammation of the iris. It is also found to take place in consequence of inflammation of the cornea proceeding to suppuration. When the matter has formed, instead of escaping externally, it makes its way into the anterior chamber, to the bottom of which it falls; you see a yellowish substance having the appearance of fluid matter, subsiding to the bottom of the anterior chamber.

Treatment.—It has been generally considered proper, in the treatment of hypopyon, to make an opening into the cornea to let out this matter, but, in my opinion, that practice is entirely wrong. The object here is to put a stop to the inflammation which produces the deposition; and if you do that, absorption is extremely active in the anterior chamber, and the matter which has been deposited will be quickly removed, so that an opening for its discharge is altogether unnecessary. Further, the opening for the discharge is not effective; for although this particular appearance leads you to suppose that a fluid matter is contained in the anterior chamber of the eye, you will find, when you come to make the opening, that it is a thick viscid substance; so that, although the incision is made, the contents do not run out. The matter is not fluid, like that which is found after phlegmonous inflammation; it is a thick viscid substance deposited in the interstices of the cornea; it is of no use, therefore, to puncture the cornea; and further, when the matter has passed into the anterior chamber, it still possesses the viscid character, which prevents its escape. Accordingly, the plan ought not to be adopted in any instance.

When I say, in any instance, one may except the case where violent inflammation attacks the interior of the globe generally, and the globe suppurates; where the anterior chamber is filled with matter, and the whole globe presents a yellow appearance; where the whole globe may be said to be converted into an abscess. In this case the eye is destroyed as to vision, and you may hasten the healing, by making an opening to let out the matter; but where the injury is not so great, you are to employ the antiphlogistic treatment, or mercury, in the way I have mentioned, and trust to the natural process of absorption for removing the puriform matter in the anterior chamber.

The iris is liable to inflammation, and this constitutes the case technically called—

Iritis.—Inflammation of the iris shows it-

self principally by effusion of lymph. The iris and the anterior chamber of the eye bear a kind of analogy to the serous cavities of the body, the changes in the one resembling those in the other; for example, in the cavity of the abdomen, and also in the cavity of the chest, we observe that inflammation generally exhibits the adhesive character—that is, it produces readily the effusion of coagulating lymph, and the same circumstance takes place in inflammation of the iris. The lymph exuded in inflammation of the iris is deposited into its texture, and produces a difference of colour in the organ, changing its natural appearance; hence you have distinct masses on the surface of the iris—small tubercles—of which there may be one, two, or more, of various sizes, either on the edges of the pupil, or on the surface of the iris; it is also deposited in such a way, as to form preternatural adhesions between the margins of the pupil and the crystalline lens, fixing the pupil, and preventing its ordinary motions of dilatation and contraction. These are the principal symptoms: the change of colour in the organ, the deposition of lymph in different masses, either on the edges of the pupil, or on the surface of the iris, so as to cause preternatural adhesions between the pupillary margin, or posterior surface of the organ, and capsule of the lens. The pupil generally contracts in iritis at the commencement of the affection; indeed there is an intolerance of light, a painful sensation caused by the accession of light to the eye, and the pupil contracts, in order to exclude the admission of light, which acts painfully on the retina. The lymph which constitutes the preternatural adhesion, is thus effused on the contracted iris, which it tends to fix and retain in this condition. In conjunction with these changes in the appearance of the iris and the pupil, we find increased external redness of the eye, and this redness in the commencement is seated anteriorly on the sclerotic coat, forming a zone or boundary of red immediately round the margin of the cornea. The vessels of the cornea are but little distended, and the sclerotica retains nearly its natural paleness. Thus the eye presents a zone or boundary of red immediately round the cornea, while the rest of the organ is nearly natural in its appearance. As the affection however advances, more particularly if it be acute, the redness generally extends to the sclerotic coat; the vessels of the conjunctiva then become filled, and the whole external surface of the organ presents one general appearance of redness. The lymph which, in the first instance, is so effused as to form adhesions between the margin of the pupil and the crystalline lens, sometimes is thrown out in a larger quantity, and fills the pupil, generally forming an opaque greyish phlegm, destroying the natural dark-black appearance of the pupil altogether. When the lymph is thus effused, you will readily conceive that vision must be seriously impaired; indeed, when effusion has commenced in iritis, vision generally becomes dim, and the dimness often increases to such an extent, that the patient is merely able to distinguish between light and darkness. In conjunction with these changes, more particularly if the inflammation have been acute, the cornea loses its transparency; it becomes hazy and dull.

Iritis may exist in various degrees; you may have it acute or chronic. In the acute affection, the symptoms are developed rapidly, and are not easily checked. The inflammation, which usually begins in the pupillary margin of the iris, soon extends, so as to occupy the whole surface of the iris, passing from this margin to the ciliary circumference, from the cornea to the sclerotica, and in the result affects the external as well as the internal parts. So that in acute iritis, after a time, you find it so extending as to occupy both the external and internal tunics. In chronic iritis, the inflammation will commence in the external ciliary margin; it may creep from the ciliary circumference to the internal parts, but it does so very slowly. In chronic iritis you sometimes have effusion of lymph, causing adhesion between the margin and the capsule of the crystalline lens, without any visible inflammation of the eye. This slow inflammation may be equally propagated to the more remote parts of the eye as in the acute form of the disease. Thus it may happen that iritis has occurred in one eye, that it has produced the deposition of lymph so as to form a series of adhesions fringing the entire border of the pupillary margin, and then extending to the whole of the tunics of the globe of the eye, so as to render the retina wholly insensible, without occasioning any redness or producing any pain, or in fact any symptoms that have attracted the attention of the patient or the persons attending him; and at last the patient has only observed by accident that vision is lost. There is therefore the greatest difference between acute iritis and one of these insidious chronic cases; and you have every gradation between them.

Iritis again differs with respect to the causes which produce it. It is sometimes brought on by causes immediately acting upon the iris; the wound, for instance, which is inflicted on the iris in the operation of extraction or depression of the cataract, will sometimes cause iritis. The exposure of the eye to very strong and powerful lights, or its exertion on minute objects, will cause iritis; and the inflammation thus

produced by circumstances directly acting on the organ is called

Idiopathic Iritis.—In the greatest number of cases of iritis, however, it seems to owe its origin to some morbid condition of the system, and one form of it has therefore been called by the German writers

Syphilitic Iritis,—most frequently seen as a secondary symptom when occurring in connexion with syphilis; it is particularly characterised by effusion of lymph in distinct masses on the external surface of the organ. You see little drops or tubercles of lymph of a light-yellowish-brown colour, sometimes of a pretty bright red colour, deposited either on the margin, or on the surface of the iris itself. Together with this other changes arise in the organ from the general effusion of lymph into its texture. When these masses of lymph are deposited on the pupillary margin, they fix it by adhesion to the capsule of the crystalline lens, and render the parts incapable of motion, producing an irregularity in the functions of the organ. In syphilitic iritis there is another symptom characteristic of the complaint, it is that the pain consequent in the affection appears in the form of nocturnal paroxysms: the patient is tolerably easy during the day, but soon after going to bed, or at some particular hour at night, or early in the morning, severe pain comes on; often not of the eye itself but of the parts around it, and increases to such a degree as to prevent the patient from resting during its continuance. Another form of iritis is frequently seen in gouty persons, called

Arthritic Iritis,—which is distinguished by the circumstance of the patient having had other arthritic affections, and by the iris being generally changed in colour from effusion into its texture, but not exhibiting the distinct masses of lymph on its surface, the pupil being contracted, and occupying the centre of the iris; whereas in syphilitic iritis, in consequence of effusion of lymph in the iris, it is apt to be irregular, and is very frequently contracted and drawn towards the internal angle of the eye.

Treatment.—In the *treatment* of iritis we are to employ in the first instance active antiphlogistic means. Here is an active inflammation spreading with great rapidity (if of the acute form), seated in an important part of the eye, which, if you allow it to proceed, will extend from the iris to the choroid coat and to the retina, and endanger sight in the most serious manner: you must therefore take blood from the arm in robust persons, and also from the head and neck by cupping, repeating these until you have decidedly checked the inflammatory affection. In many cases of iritis you can remove all symptoms, and put a stop entirely to the affection, by the antiphlogistic treatment, carried to a considerable extent, and persevered in for a sufficient length of time. But in many instances, although you can check the inflammatory disturbance, although you can lessen the vascular congestion of the eye, and relieve the patient from all feverish symptoms, yet you do not succeed in putting a stop to the effusion of lymph or accomplish the absorption of that which has been already deposited. You find it necessary to resort to other means, principally to the use of mercury, so as to affect the constitution. The use of this remedy, after the employment of the antiphlogistic means I have mentioned, has the most decided influence in putting a stop to the disturbed condition of the vessels of the iris on which the effusion depends: it arrests the effusion; that which has been already effused becomes absorbed; the masses of lymph, when such have been poured out, are removed by the absorbents, the iris recovers its natural colour, the cornea becomes clear again, the zone of red, in the sclerotic coat around the cornea, becomes less vivid, is soon dispersed, and vision is rapidly restored. These effects take place with great rapidity when the system has been strongly and speedily affected by mercury; these beneficial effects depend mainly upon the degree of influence which the mercury has on the system: for this purpose the exhibition of calomel with opium is the best mode of proceeding. Two or three grains of calomel with a third or half a grain of opium may be given every four, six, or eight hours, until free salivation is produced. In some particular instances you may find it necessary to rub the mercurial ointment on the inside of the thighs; to administer the hydrargyrum cum creta, or blue pill; but in general calomel and opium do very well. You must keep up the mercurial effect on the system until all appearance of disease is removed, and then you must allow it slowly to subside. In conjunction with this exhibition of mercury, you must employ belladonna locally in order to dilate the pupil—belladonna, hyoscyamus, stramonium, and cherry laurel, have this effect; that is, when the pressed juice or extract of either of these vegetables is applied to the surface of the eye dissolved in distilled water, or when the extract is rubbed on the skin above and around the eye, it has the peculiar effect of producing contraction of the iris and dilatation of the pupil. We employ the belladonna from finding it the most effective, and consequently the most convenient, of these narcotics. When you introduce it into the eye, the mode is to drop in a solution of the extract (made by dissolving one scruple in an ounce of distilled water and

then filtrating it); once or twice in the course of the four-and-twenty hours; or you may rub the upper eyelid, the eyebrow and the neighbouring part of the frontal region, with the extract moistened into a sort of paste with distilled water, using it as if you were laying on a coat of black paint, letting it remain there for an hour and then washing it off; the latter is the most convenient form when it is used in active inflammation of the iris. If the eye be not actively inflamed, the solution of the extract may be employed more advantageously; the immediate application of the substance to the surface of the conjunctiva produces the greatest effect; the application of the extract to the eyebrow and neighbourhood of the eye does not produce quite so much influence. The employment of belladonna in this way with mercury, favours the action of the remedy; while the lymph is absorbed under the action of the mercury, the belladonna favours its power by dilating the pupil, by overcoming the contraction which is observed in iritis; in instances where adhesion has been produced between the capsule of the crystalline lens and the margin of the pupil, if this remedy be applied while the lymph is still soft, the adhesion in many cases will become detached, so that the pupil recovers its natural size and usual mobility; or in other instances the soft and ductile matter is stretched, and the adhesions, instead of fixing the capsule of the lens to the margin of the pupil, form links or threads which do not materially interfere with the motions of the iris.

I wish you to understand, that in many cases a cure may be effected by the ordinary antiphlogistic means; I only speak of the mercurial treatment, as being very advantageous in most cases, and very useful in bringing the complaint to a more speedy and effective end than would be obtained by the employment of the antiphlogistic means alone; but it is not essentially necessary in all cases. In *gouty iritis*, the free employment of mercury is not so advantageous as in syphilitic iritis, and in that of the idiopathic description. It has been found, that persons of gouty diathesis do not bear the exhibition of mercury so well as others. In such cases we employ antiphlogistic means, according to the degree of inflammation which is present, and use the mercury moderately. I do not consider that the use of mercury in gouty habits is so injurious as to prevent its employment in moderate doses; on the contrary, I think it ought to be used moderately; we may employ the Plummer's pill night and morning, but not so as to produce its decided influence on the system.

Retinitis.—The retina is, perhaps, as liable to inflammation as the iris, but we are less acquainted with the phenomena of inflammation in this part, in consequence of its being situated out of our sight; and as it does not in general terminate fatally, we have not the opportunity of tracing the phenomena after death. Many cases occur, however, in which we can entertain little doubt that inflammation of the retina is the cause of the symptoms. I may mention an example of this:—A young woman, of florid complexion, and rather full habit, who was cook in a large family, occupied for many hours a day before a large fire, and living tolerably freely at the same time, began to feel uneasiness in one eye, the vision of which also became dim. When I saw her, she said she had something the matter with one eye. On making a superficial inspection, nothing was apparent, but on examining the eye more narrowly, I observed that one pupil was a little more dilated than the other. There was a degree of redness and flushing of the face; and on questioning her, she said that she had had considerable pain in that side of the head, with dimness of sight. There was a white tongue and thirst, and a slight tinge of redness was observable in the cornea, with a slight dilatation of the pupil. These constituted the only visible changes in the eye. I directed that she should lose some blood from the arm, take active aperient medicine, go upon a reduced diet, and avoid exposure of the eye to any strong light or heat. In a couple of days I saw her again, but the treatment had made the eye no better; on the contrary, the sight was worse. I then directed the free abstraction of blood from the arm, and cupping, with aperient medicine, and at the end of two other days the sight was still more dim. I then commenced the active employment of mercury, giving every four hours two-grain doses. Two days from the commencement of this plan, she could not feel that the sight was worse, but upon accurately examining, I found that in reality, at this time, vision was very nearly gone, and she could do little more than distinguish between light and darkness; however, after this time, the mercury very speedily affected the mouth, and in a short time more, very profuse salivation was produced, on which all the pain ceased, and vision was so much improved, that in the course of a few days the power of the retina was completely restored. Now I should call this a case of *retinitis*,—if we were to give it a regular technical denomination—an example of inflammation of the retina, confined to the texture in which it first commenced, and extending very little to the other parts.

Treatment.—The treatment is, in fact, the same as that of iritis generally. Antiphlogistic means first, and then the use of mercury, so as to produce its peculiar effect

on the system; and, as far as my experience goes, I should say, that mercury thus used, exerts fully as decided a power in putting a stop to the inflammation, as it does in stopping inflammation of the iris. In all cases, then, that come under the description of active inflammation of the retina, you may trust with full confidence to the exhibition of mercury in this way.

Now if the inflammation of the retina so commencing be allowed to proceed, it will, in the first place, render the retina incapable of vision; but as the inflammation extends to the other tunics, and, no doubt, the choroid coat and the sclerotica now become inflamed, a zone forming round the edge of the cornea; then the iris begins to alter in colour, the pupil begins to contract, lymph is effused into the aperture of the pupil, and thus we find it is a case of inflammation of the internal tunics of the eye generally. In the commencement, it would be a case simply of inflammation of the retina; in the end it would be a case of inflammation of the internal tunics generally. The treatment is the same as in other cases of the kind.

There are some cases of inflammation of the internal tunics of the eye, in which the attack of inflammation seems to take place in

The vitreous humour, retina, and *choroid coat.*—These occur in elderly persons; at all events, in persons past the middle period of life; either in those of a gouty constitution, or in those who have lived very freely, and who have brought on a state of body very analogous to that of gouty diathesis—persons in whom free habits of living have produced redness of the integuments of the nose and face—pimples; a swelled state of the nose, with a varicose condition of the vessels about the face. In such instances, severe pain will come on in the eye; the pupil becomes dilated, and instead of presenting its natural colour, exhibits a dull dirty greenish hue, in consequence of the change which the inflamed vitreous humour has undergone. The pupil is excessively dilated, the iris is altered in colour, generally becoming of a dull leaden cast, there is great distention of the external vessels of the eye, particularly of those of the choroid coat, and in the very commencement of the affection, vision is usually totally destroyed. With this green shade, this excessively dilated condition of the pupil, and the dull leaden-looking iris, you have almost a complete loss of vision. It is, in fact, an inflammation commencing in parts most essential to the function of vision—in the retina, in the vitreous humour, and probably involving the choroid coat.

Treatment.—All we can do in a case of this kind, is by the employment of antiphlogistic means to relieve the patient from the pain in the eye, and the general inflammatory symptoms that accompany the affection. We have no power in this case, when it is fully developed, of restoring vision; at all events I have never seen a case of arthritic inflammation of the internal tunics of the eye, in which vision was lost and then restored. It has sometimes been called

Acute glaucoma, this term being derived from the greenish appearance of the eye. It has been called glaucoma from another symptom, which takes place where, without any enlargement of the vessels, without any very severe pain or absolute extinction of vision in the first place, the pupil exhibits the same greenish discoloration, a discoloration which obviously does not depend on a change in the crystalline lens, for it is more deeply seated; it occupies the fundus of the eye, and you can only see it by looking at it when you are standing directly before the patient, not by looking at the eye side-ways. This is called glaucoma simply; and it appears to me to be a chronic form of the same affection as that to which the term acute glaucoma is given. This chronic form of glaucoma is important to be observed, for it is liable to be confounded with cataract.

Treatment.—By moderate antiphlogistic treatment, with the moderate use of mercury and means of that kind, you may check the progress of chronic glaucoma, but you do not in general succeed in restoring vision; the best you can do, is to prevent the change from getting beyond the point it has reached at the time you see the patient, and to preserve that degree of vision which the patient may then possess.

These are the principal inflammatory affections of the eye. I have mentioned them as they occur in the particular textures of the organ; not that in all instances you will see them confined to those textures, but only very commonly. You will find them limited in proportion as the period at which you see the patient is early, and the treatment has been judicious. It is principally in consequence of neglect or injudicious treatment, that the affection becomes extended over the several textures of the organ, or the whole of the eye.

Catarrhal rheumatic affection of the eye.—Now when the conjunctiva is affected, I have mentioned that you will find it occurring under the form of catarrhal inflammation; when the sclerotica is involved, it is generally rheumatic inflammation, and may be called rheumatic ophthalmia. But these two tunics are so intimately connected, that it is not uncommon to have them both affected at one and the same time, when the disease has been designated as above.

Treatment.—There is nothing peculiar in the treatment, when both membranes are

involved at the same time; in fact, the treatment of inflammation of both membranes of the eye is generally the same as that of other parts of the body.

In the same way inflammation attacking any one particular texture may extend, first, to the internal, and then to the external tunics, although, in general, if the treatment be judicious, it is confined to the texture in which it is originally developed.

There are cases in which the whole globe of the eye, both the external and internal parts, are involved in one inflammation. You may have, first, the sclerotics becoming red, then the conjunctiva, passing into a state of chemosis, the iris changing its colour, the pupil becoming contracted and filled with effused lymph—in fact, the whole, both of the external and internal tunics becoming involved in one inflammatory affection; to such a case, the name of general *ophthalmia* has been given by German writers. It is one of the most serious diseases of the eye, and will require all the most direct and active means, whether general or local, you can employ to check it; but you will very seldom have an opportunity of observing one of those cases of general ophthalmic inflammation of the eye.

Lecture LXXI.

Diseases of the Eye, continued.—Amaurosis (Gutta Serena); Organic and Functional; Symptoms; Treatment.—Hemeralopia; Treatment.—Nyctalopia.—Presbyopia.—Myopia.—Amaurosis resumed.—Strabismus; Treatment.

Vision may be injured or lost in various ways; in consequence of change of structure in the transparent media, through which the rays of light pass—that is, in consequence of opacity taking place in the cornea, in the crystalline lens and its capsule, or in the vitreous humour;—in consequence of obscurity or closure of the pupillary aperture through which the light has its passage,—or in consequence of disease of the nervous structure of the eye. To the injury or loss of sight which arises in the last case, the name of

Amaurosis—has been technically given. This, which is a Greek word, signifies, simply, darkening; of course it implies that diminution of vision which is consequent on affections of this important structure. The term *gutta serena* is, perhaps, nearly synonymous with amaurosis; however, there is this distinction between them, that amaurosis is a general term applied to all affections, whatever may be their degree, of the nervous structure of the eye; while gutta serena is rather applied to the complete state of blindness which arises from the affection of the nerve when it is fully established.

The nervous structure of the eye may be affected in any part of its course; that is, you may have disease affecting the nerve, where it is connected with the basis of the brain, in its passage within the cavity of the cranium, within the cavity of the orbit, or, finally, in its expansion on the interior of the globe of the eye. Affections arising from disease of the nervous structure in any of those parts, come under the common denomination of amaurosis. It is not uncommon to have vision impaired or lost from causes which act on the nervous structure belonging to the eye, within the cavity of the cranium; such as the collection of fluid in the ventricles of the brain in hydrocephalus internus, particularly in the third ventricle; disease or tumours in the brain in that situation, where the nerve of vision is connected with the basis of the brain, tumours that press on it in its course within the cavity of the cranium, and disease of the bones affecting the nerve in this situation. Tumours, or disease of bones affecting the nerve in the cavity of the orbit, or disease of the nerve itself within the cavity of the orbit, all these produce impaired vision, and, ultimately, loss of sight. In these cases the loss of sight is generally accompanied with severe pain in the head, and other sufferings which are not relieved by any treatment that we adopt, and by a regularly proceeding uniform course of symptoms which usually point out the existence of such organic disease, as I have just alluded to, as the cause of the affection; but the affection to which I now wish to direct your attention particularly, is that which arises from affection of the nervous expansion, or the retina within the globe of the eye.

The retina may be affected in common with other structures of the globe of the eye, for it is involved with them in some of the diseases I have already mentioned to you; but we give the name of amaurosis to those cases particularly, in which the retina suffers originally and exclusively. The instances in which the retina suffers in common with other textures of the eye are named according to the more prominent characters of the complaint; but it is when the retina is the original or exclusive seat of disease, that we apply the term amaurosis.

The retina suffers from an inflammatory affection, in consequence of over-exertion of the eye in many persons, whose employment in various mechanical operations is attended with an habitual straining, and in whom the effort of the eye is continued for a great many hours of the day; this is the case with tailors, milliners, mantua-makers, seamstresses, watchmakers, mathe-

matical instrument makers, printers, engravers, writers—those that are employed by lawyers and others; in fact, by a great many persons occupied in departments similar or analogous to those which I have just mentioned to you. In all these instances the retina is excessively fatigued, the degree of exertion is continued for a greater length of time than the organ is capable of bearing, and it is employed on objects that require close attention, and continued straining of the eye. The effect of this excessive exertion is, of course, in the instance of persons of very robust frames and full habits, and those who indulge in eating and drinking, to induce determination of blood to the head; and the effect will be greater, when, in conjunction with these circumstances persons lead a very sedentary life, and neglect active exertion. You will find, then, that in these various ways a great number of the community are exposed to those causes which are calculated to bring on disease of the nervous structure of the eye; hence you will not be surprised to find that amaurosis is a very frequent affection. In some cases, however, the retina is attacked sympathetically. It does not follow, in all instances, that there is actual inflammatory disease of the retina; the retina, like any other part, may be attacked by causes which act on it, so as to disturb its function, without producing visible derangement of its structure. A distinction has been made of amaurosis, into organic and functional; that is, into those cases of amaurosis which depend on an actual change in the structure of the nervous part of the eye, and those in which only the function of the retina is disturbed; this, of course, would be a very important distinction, if we were able to point out the difference in practice; but the truth is, that we cannot see the retina, and are unable, therefore, to determine in particular cases, whether the organ is the seat of an inflammatory affection, or suffers merely in its function. We know that, in certain cases, the function of vision may be temporarily impaired, or even almost totally interrupted, and then suddenly recover; we see such instances sometimes in children from the irritation of teething, and from worms in the alimentary canal; and we therefore judge there can be no real disease of the retina, but infer that the disease is only functional.

Symptoms.—The *symptoms* of amaurosis, at least those which are characteristic of the affection, are to be found in the state of vision, and in the condition of the pupil. There are other symptoms which are connected with the complaint, but they vary in different instances,—they are not to be relied upon as characterising the complaint; for instance, in some cases, the origin and progress of amaurosis, may be preceded and accompanied with pain in the head, and various uneasy sensations in the neighbourhood of the eye; these pains are sometimes very considerable, but, in other instances, are not present at all. In some cases, there are obvious marks of derangement in the functions of the alimentary canal; in other cases they are wanting. But you look to the condition of vision, that is, to the state of vision as it is affected by the retina, and also the condition of the pupil which depends on the state of the retina, in order to discover those symptoms which more particularly indicate the nature and degree of the disease. In amaurosis, then, you may have the function of sight interrupted in various ways, and in various degrees, or it may be entirely destroyed. The patient loses the power of clearly discerning the form, or the colour, the outline, or the minute points of the various objects around him. In many cases, the patient at first seems to perceive objects through a kind of mist or cloud, which conceals them, and which gradually becoming thicker and thicker, ultimately destroys sight entirely. Sometimes objects appear to be seen with tolerable clearness, and yet they are not properly distinguished from each other. Thus, a person in attempting to read finds that the letters run into each other, or that the lines of the print appear to be multiplied; sometimes, the forms of the letters appear to be different, the forms of the objects he sees around him are distorted and changed, and, sometimes, the colours of objects are essentially altered. There are instances in which a patient can see only the half of an object before him; he is able to see only the upper or the lower half, or the left or the right side of an object; very frequently also, and more particularly in the commencement of the affection, patients lose the power of distinguishing things which are immediately before them, but are able to discern those situated on one side; that is, the central portion of the retina, the part habitually exercised, loses its power first, while the circumference of the retina, which ordinarily is not so much exerted, retains the power of vision longer. Frequently the affection commences by the appearance of various aerial spots, clouds, specks, imaginary objects which appear to float in the air; these generally pass under the name of *muscæ volitantes*, although they are not in all instances in motion or floating, being sometimes fixed. It occasionally happens, that a black spot or point is fixed before the eye; this becomes larger and larger, till at last it occupies the whole field of vision. Patients observe objects sometimes double, they have double sight; but this rarely takes place, except in instances in

which a degree of squinting occurs, and where, perhaps, one eye is affected more than the other, and does not move in harmony with it, and where, in consequence of the want of correspondence in their axis, two objects are seen instead of one; in such instances, if the patient close one eye, the object is seen single, and it is only when both eyes are open, that double vision is observed to take place.

In whatever way the affection shows itself, we find that it is at first but slight in degree, that it gradually increases, and, if the cause which produces it continue to act, no means being taken to prevent the development of the affection, that it goes on until the patient is deprived of sight. When I state that sight is lost, I do not mean that the retina is in general rendered absolutely insensible. There are a few instances, in which the patient is unable to distinguish between light and darkness, and some, in which he still retains the power of distinguishing large objects.

When the complaint is fully developed, that is, when vision is nearly or entirely lost, there is a peculiar vacant stare, which particularly denotes the existence of amaurotic blindness. When a person thus affected comes into a room, he does not fix his eyes in the same manner as a person who has the proper use of the retina, but he seems to fix them on the centre of the room, and exhibits a peculiar vacant unmeaning stare, which points out the existence of the affection. In the state of incomplete loss of sight, a person who enters a room looks about, although he cannot see, as if he were attempting to observe objects, and was conscious that the power of vision still existed; but, in the case of complete amaurotic blindness, that state which is termed gutta serena, the eye is wide open, and directed quite into the air, or into the centre of the room.

The motions of the iris, and consequent changes of the pupil, are considered to depend upon the condition of the retina. We find ordinarily that when the eye is exposed to a powerful light, the pupil contracts in order to exclude some portion of it, and, on the contrary, when the light is weak, that it dilates in order to admit large quantities. Speaking, therefore, of the changes of the pupil and iris, we can have little hesitation in stating, that they depend upon the influence which light has on the retina. The process of disease in the retina, of course tends to lessen the action of light upon that structure, and it cannot but produce a sensible change in the motions of the iris, and the size of the pupil. When the retina becomes less sensible, the iris moves less briskly, the pupil exhibits fewer of those natural changes which the ordinary variations of light would produce, and in proportion as the insensibility of the retina increases, the motions of the iris become more and more sluggish, until at last, when the retina is rendered completely insensible, the iris becomes motionless, and the pupil remains in a permanently dilated state.

As one of the most striking symptoms of amaurosis or gutta serena then I have mentioned a permanently dilated state of the pupil; and we might consider this state as applying to complete amaurosis, that is complete insensibility of the retina; but inasmuch as the term amaurosis includes all degrees, from the slightest form to the entire loss of sight, you will understand that this permanent dilatation of the pupil is not found under all circumstances: in the first place, you have only a sluggishness of the iris without any very material dilatation of the pupil. In some instances too we find an amaurotic state of the retina, where the pupil instead of being dilated is contracted; and there are some instances in which in conjunction with amaurosis which appears to be so complete as to render the patient unable to distinguish between light and darkness, a nearly perfect state of the motions of the iris still exists: this is more particularly the case in diseases affecting the nervous structure of the eye within the skull; for instance, in cases connected with hydrocephalus, where the retina may be perfectly insensible, and yet the iris will move in a nearly natural manner.

Amaurosis generally commences in one eye, and after proceeding to a certain extent, shows itself in the opposite eye, unless means are taken to check its progress. It does not necessarily follow, that amaurosis will attack both eyes, but in the great majority of instances it takes place first in one eye and then in the other; it will take place in the second eye, if the original cause continues, and no means are taken to obviate such an effect. Amaurosis attacks subjects of all ages, and under all circumstances. We see it taking place in children, and occurring at all periods of life down to old age. There can be no question that the *cause* of this affection, in the great majority of instances, is a state of the retina which must be deemed *inflammatory*, and, consequently, that the plan of *Treatment*,—must be of the antiphlogistic kind. The cure in fact of amaurosis, like that of inflammation of the iris, turns upon two points;—the employment of ordinary antiphlogistic means, that is the abstraction of blood either generally or locally, with the other part of the antiphlogistic treatment, and afterwards the use of mercury so as to affect the system: indeed mercury appears as effectually to check the progress of inflammation of the retina as it does that of inflammation in the iris, and it acts as benefi-

cially in checking the progress of the chronic inflammation of the retina, which is the ordinary cause of amaurosis, as in checking the progress of the more active affection which would constitute retinitis—active inflammation of the retina. In order to derive the full advantage which this remedy is capable of rendering, it is necessary in these cases to produce its peculiar action on the system, and sometimes to keep it up for several weeks. It is not sufficient just to render the action of the mercury sensible on the mouth, and then to discontinue it: you must often produce and keep up pretty active salivation for weeks in order to enable you to derive all the benefit which the remedy is capable of affording. You will readily understand that the circumstances under which amaurotic affection takes place are so various, and that the powers of the system in individuals are so different, that you cannot always adopt the same treatment: you are not to suppose that in all cases you are to bleed the patient from the arm, cup him, and then administer mercury so as to produce salivation. In the case of amaurosis, as well as in other affections, you are to adapt the remedy to the circumstances of the case; if you have to treat an amaurotic affection in a robust person of full habit, or a very young person, or one not beyond the middle period of life, you may find it necessary to have recourse to acute abstraction of blood in the first instance, and then to use mercury very effectively; but under other circumstances, you would both bleed and employ the mercury more moderately. Suppose the case to be one of an elderly female, who has injured the eyes by excessive attention to needle-work, a thin spare and sallow person, who by a sedentary state of life has brought on an inactive condition of the alimentary canal, who, by keeping constantly within doors at her occupation, has considerably weakened the nervous system; you would not immediately proceed to rough modes of treatment. You might find it necessary to apply a few leeches to the temples, or perhaps you might not to take blood at all; but you would put a stop to the exciting cause, would enjoin repose, administer the Plummer's pill with aperients and tonics, and order a change of air.

In the treatment of these cases counter-irritation is sometimes a useful auxiliary. You may find it necessary, in conjunction with other treatment, to apply a blister behind the neck, perhaps every five, six, or seven days during the time you are employing the other treatment. Other plans have been recommended in amaurotic affections. Scarpa, and some of the German writers, have particularly recommended the employment of emetics, having considered that a foul and loaded state of the stomach, as they call it, exists, and conceiving that benefit will arise from the action of emetics in clearing away the obstruction which they suppose to exist, and in removing the matters which irritate the stomach. They administer the tartrate of antimony as an emetic, repeating it from time to time, and afterwards giving remedies very similar in their nature to our Plummer's pill, combined with purgatives. For my own part I have seen no decidedly good effect produced by emetics in amaurotic affections. There may be some cases in which emetics may be useful, but considered as a general remedy I think the plan of treatment is objectionable; it would induce you to omit the means of greater efficacy. Electricity has been recommended, under a notion that the affection arises from a state of inflammation which might thus be amended. But I suppose that electricity is no more capable of putting a stop to inflammation of the retina than of any other part or texture of the body; and I imagine there is no great evidence for supposing that electricity is much of an antiphlogistic. Under an idea that the deficient state of vision arises from weakness of the nerve, an idea which appears to have arisen in a great measure from the expression used by patients that their sight is "weak," all kinds of tonics and stimulants and antispasmodic remedies, have been tried over and over again in amaurosis; indeed it would take a long time to go through a catalogue of the means that have been employed in cases of this kind. I conceive that their use proceeds on a quite erroneous idea as to the nature of the disease; that the weakness of sight in this instance arises merely from disease of the nervous structure, by which the sense is exercised, and that you could no more obviate it by tonics or stimulants, or nervous remedies, than you could by the same measures obviate the weakness of any other organ of the body that is in a similar state of high inflammation. These means, in fact, are not only not efficacious, but I should consider them to be absolutely and very seriously injurious; indeed I have no hesitation in saying, that I have seen cases over and over again where an impaired degree of vision, arising from an affection of the nerve, might have been arrested by proper treatment, but which has been rather increased and confirmed under the employment of stimulants. Vast numbers of eyes must have been sacrificed by the adoption of treatment directed on these mistaken views. I think you will hardly meet with any case in which the amaurotic affection can be clearly traced to causes that can be considered to be of a debilitating nature. There is, perhaps, only one kind of amaurosis that can at all come

under this description. Women who are suckling, and who have continued to suckle for a long time, sometimes become much enfeebled, weak, and nervous, and their sight then frequently suffers; imaginary objects pass and flash before their eyes, and the sight becomes dim. You find, in such cases, a collection of circumstances indicating debility. Under these circumstances, weaning the child, the administration of a good diet and light tonic medicines, will often put a stop to the affection. It is is a kind of amaurosis which I think may so far be said to owe its origin to something like debility, but it is almost the only kind of case in which that description of treatment is applicable.

I have mentioned to you, that amaurosis sometimes appears to be what is properly called a functional affection; that is, it takes place under circumstances in which we cannot suppose the nervous structure of the eye to be actually diseased. There is one remarkable case of this kind, to which the term

Hemeralopia, or *Night-blindness*, is given, where the amaurotic affection is intermittent and periodical. The patient sees very well during the day, but the sight becomes defective as twilight approaches, is totally suspended during the night, and again becomes perfect as the sun rises. This is an affection which is rarely seen in this country, or within the temperate zones; but it is by no means uncommon between the tropics, that is, in the warmer regions of the globe, and it appears to arise from excessive stimulation of the retina, occasioned by the strong light to which the eye is exposed in those regions during the day, so that the retina is not sufficiently excited for the purpose of vision by the light which exists at night. The affection proceeds, in certain cases, to such a degree, that an individual who is seen quite well during the day, when night comes on, finds that the power of discerning light is so completely gone, that he is unable to see the light of a candle brought close to the eye. This affection will last for a considerable length of time, but does not terminate in loss of vision; on the contrary, the affection at last goes off and sight is recovered.

Treatment.—Blisters, to the temples particularly, will be found the most efficacious mode of treatment. I have seen the affection in a few instances in this country, but the cases were all such as had originated in the East or West Indies. And where persons have experienced it after their return, or after suffering for a length of time in those regions, it has given way to mild antiphlogistic treatment, blistering, and purging.

Nyctalopia.—Cases of *nyctalopia* have been talked of, that is, blindness during the day, with vision at night. Now I cannot say that I have ever seen an instance of that kind. In individuals labouring under strumous ophthalmia, there is such a degree of intolerance of light, that the patients may be said to be blind during the day—they cannot bear the light; and yet those individuals when twilight comes on, are able to apply the eyes, and can see; that is certainly a nyctalopic state.

There are also states of the eye in which the patient sees pretty well in a moderate light, although he cannot see in a strong one. A central opacity of the cornea, of the crystalline lens, constitutes a case of this kind. In a strong light the pupil is contracted, and no light gains admission, but in a weak light, where the pupil and crystalline lens become dilated, light passes in through the transparent circumference of the cornea or of the lens.

There are certain states of imperfect vision which arise from alterations in the optical parts of the eye. The transparent media of the eye are to be considered merely in the light of certain optical instruments, which are calculated so to act upon rays, as to bring them to a focus on the retina. You can imitate them by an artificial instrument. All the parts of the eye are quite mechanical; they act just according to the laws which affect media of a certain density, out of the body. In elderly persons, the refractive powers of the eye become gradually diminished, so that the rays of light are not brought to a proper focus on the retina; the refractive powers are lessened, so that they do not converge the rays with sufficient power for the purpose of vision; hence such a person is unable to see objects situated near the eye; he cannot read at an ordinary distance, nor see to mend a pen, nor perceive minute objects placed near the organ of vision, the refractive powers of the eye not being adequate to bring the divergent rays which proceed from near objects to a focus; yet such a person can see distinct objects with the greatest clearness. He cannot, perhaps, see what is the hour by a watch held in his hand, but he will tell you what o'clock it is by looking at a very remote church dial; this is called far-sightedness, or

Presbyopia,—that is, a state or change of vision consequent on old age. It occurs sometimes about the middle period of life, but generally after, or as old age comes on.

The remedy consists in the employment of convex glasses—the use of spectacles; and the individual must select glasses of such a power, as will enable him to read or see any objects at the ordinary distance with facility. He merely wants to use this optical aid for near objects; remote objects he

is able to see perfectly well without glasses. But as this is a change of the eye which is progressive, he finds, a certain time after he has selected the spectacles, that they do not answer the purpose, and he is obliged to use more powerful glasses.

Myopia.—An opposite state to this is that state which you find incidental to young persons, and is termed *myopia*. It seems to be a natural defect of the condition of the eye, by which its refractive powers are too considerable; the rays of light are brought to a focus sooner than they ought to be, so that they diverge and are scattered again, before striking on the retina, and thus inefficiency of vision arises.

This requires optical aid of a different kind, in fact, it requires glasses exactly opposite to those required in presbyopia. The near-sighted individual requires concave glasses to assist him in viewing remote objects. He is able to see all objects well that are near to the eye; in fact, he can see them when much nearer than the distance at which they can be observed by others, the refractive powers of his eye being stronger than those of most individuals; but he loses the sight of distant objects. A near-sighted individual cannot see the countenances of persons in a large room; he cannot distinguish the features of players on a stage, he cannot describe pictures in a room; for all these purposes he requires concave glasses. This is a defect of vision found in young persons; perhaps at from fourteen to eighteen years of age they begin to detect it.

Young persons do not like the idea of using glasses, and they want to know whether or not they may safely do so—whether the employment of glasses is likely to assist them permanently. You may say, certainly, in such a case, that they are absolutely necessary for the purpose of vision; that their use is not attended with any injury to the eye; that the employment of glasses is not likely to render the eye worse, or to make vision more imperfect. It is better that a person so circumstanced should use such glasses as will enable him to see objects without any unpleasant effort of the eye; he will do better with assistance of that kind, than by attempting to strain the eye without it. It should be observed, that he ought to use a glass that will just enable him to see easily and clearly, and not to employ one that will occasion any fatigue to the eye. With a glass of the latter kind, he may be enabled to see objects better than with one of another sort; but if it produce any uneasiness about the eye, it is a clear proof that the instrument is too powerful, and would certainly injure the sight.

Amaurosis resumed.—I should have mentioned to you, in speaking of *amaurotic* affections, another circumstance with respect to the imaginary objects that are seen before the eyes, to which the name of *muscæ volitantes* is given. I stated that the affection commenced by these appearances; but there are many cases in which persons are thus deceived, without any immediate or ultimate impairment of vision. It is important, therefore, that you should be able to distinguish between the cases in which the appearance of these imaginary objects may be considered as denoting the probable occurrence of amaurosis, and those in which they merely arise from a functional disturbance of the retina. Persons have before their eyes objects which present almost every variety of figure, colour, and combination, that you can describe. Very often they describe them to be like polished spots or specks; often they compare them to the minute black particles that float about in the atmosphere of London; sometimes they see one or more objects, sometimes a considerable multitude, seemingly directly in front of the eye, and interposed between it and the objects to which the sight is directed; sometimes there are threads or shreds; sometimes reticulated objects, like net-work; sometimes the objects are of a luminous nature, like sparks or flashes of fire; sometimes a sort of transparent vesicles, connected together like a chain before the eye; and these appearances generally follow the movement of the eye. This is apt to occur to persons of an irritable or nervous temperament, and to those who have been affected by any depressing cause, who have experienced great distress of mind from alteration of circumstances. It is not attended with any symptoms of change, either in the condition of the retina, or in the state of the pupil. The patient is able to discern minute objects just as well as he did before. We find that the iris moves, and that the pupil changes its dimensions just as in the natural state; these circumstances enable us to determine in a particular case, that the affection is merely a functional disturbance of the retina, and does not depend upon any actual disease in the organ. If the vision of minute objects is perfect, if the motions of the iris are perfectly performed, if the pupil contracts and dilates, we may confidently assure the patient that there is no danger of the loss of sight. If, on the other hand, we find that vision is impaired, and that the motions of the iris and pupil are also altered, we must regard, unquestionably, the appearance of muscæ volitantes as the precursors of an amaurotic affection.

Where the appearance of muscæ volitantes is a symptom denoting simply functional derangement of the retina, we do not usually succeed in removing them. The means which we may adopt, may lessen the

symptoms in degree; the patient will become gradually accustomed and indifferent to them; but the objects are still before the eye, and he continues for many years to see them. We have cases occasionally, in which such objects have been present for ten, fifteen, or twenty years, without producing any very serious affection of vision.

Individuals are sometimes met with, who are unable to discern the difference of colours, either from each other or at all, so that when they look at a painting, for example, they are merely sensible of a representation of light and shade, and do not discern the distinction between the colours. Such individuals exhibit on examination an apparent perfection in the construction of the eye; there seems to be no deviation from its natural state; and the patient is able to see objects in all other respects quite perfectly. He is quite able to discern minute objects, to see every thing, in point of fact, as other persons do, excepting as regards the distinguishing of colours. This, I apprehend, must be considered to be a natural defect, either in the eye or in the brain. The phrenologists are of opinion, that there is a particular part of the brain which has for its function the judgment and discrimination of colours, and they say, that in these cases, there is a defect in the structure of that part of the brain; that the eye is perfect, but that the brain is imperfect; we certainly do find, that the external eye is in appearance essentially perfect; at all events, this is a state which we have no power whatever of remedying.

Strabismus.—There are instances, in which the two eyes do not move in harmony together, where they are not directed as they should be to the same object, and the state termed *squinting* consequently arises, one eye being directed towards the object which the individual is contemplating, while the other diverges from it, and either looks outwards or inwards; hence the diverging or converging squint, or *strabismus*. We frequently see this at the commencement of an amaurotic affection, where the one eye being affected, and the other being in its sound state, the two eyes present a want of harmony in their motions; hence strabismus, and double vision. It not uncommonly precedes disease of a serious kind of the head, —apoplectic and other affections. There are other instances, in which squinting arises, particularly in young subjects, without our being able to discern any cause for it, not taking place as the precursor of an amaurotic or apoplectic attack.

Treatment.—An effective treatment may sometimes be adopted; but, in young persons, we are really at a loss to ascertain the cause of the affection, and we consequently experience difficulty in finding a remedy for it. It is said, that squinting may be produced from disturbance in the state of the stomach or alimentary canal; this of course will be evidenced by other proper symptoms, and, if it exist, may be remedied. There are some cases, in which we may succeed in remedying squinting by means directed to this disturbance, but there are other instances, in which we do not; where, after employing means calculated to act on the stomach and bowels, the squinting still continues. Under such circumstances, it has been recommended to tie up the sound eye, and compel the individual affected to employ the squinting eye only; for I must observe to you, that, although the squinting eye is turned away from the object at which the person looks when both eyes are open, yet, if you shut the sound eye, then the other is directed straight forward, the patient being *compelled* to use it. It may be tied up in a child for a quarter or half an hour, two or three times in the course of the day. I have seen instances, in which this mode of proceeding has removed the squint, and I have also seen others in which it has been employed without effect. In fact, there are cases in which the cause, as I have already said, cannot be detected, and where, consequently, we are at a loss to suggest any remedy whatever.

Lecture LXXII.

Diseases of the Eye, continued.—Cataract; Causes; Treatment.—Operations of Extraction, Depression, and Solution.

Cataract.—Cataract is a partial, or general, opacity of the crystalline lens, or of its capsule, or of the morgagnian fluid which intervenes between them, or of all these taken together. The existence of the disease, therefore, is denoted by the presence of an opaque substance behind the pupil, and by an impediment to vision corresponding to the degree and to the extent of the opacity. In the circumstances of the opacity behind the pupil, and the impediment to vision, cataract agrees with other affections of the eye; *glaucoma* for instance, which consists in a change of structure in the vitreous humour; also, some cases of *amaurosis*, which are attended with a change in the appearance of the pupil; it is necessary, therefore, to distinguish that kind of opacity which is seated in the crystalline lens, or its capsule, or the morgagnian fluid, from that which may be produced by other diseases of the eye.

The opacity in cataract is situated immediately behind the pupil, or at a very short interval from it. The opaque appearance in the pupil which takes place in glaucoma, or in particular cases of amaurosis, is deep-seated; it is at the bottom of the globe of

the eye. You see the opacity in those cases when you look directly into the pupil, but if you look sideways, you are no longer aware of the circumstance, while in cataract you still see the opacity, whether you look sideways or not; indeed, in glaucoma or amaurosis, the opacity is situated behind the crystalline lens, therefore it must be a considerable distance behind the pupil. The colour of the opacity in cataract is greyish, whitish, or of a light-yellowish brown, like that of amber; in glaucoma, the opaque appearance of the pupil is green—a dull dirty green—a yellowish green, sometimes even a brownish yellow green; and in the case of amaurosis, it is either of a dull-leaden, or something of a dark-livid hue, or greenish colour. The tint of colour, however, is not a sufficient distinction between cataract and other affections; it is only a circumstance which will assist you in forming your diagnosis, with some other points. The impediment to vision produced in cataract has a direct ratio to the degree of opacity that is observed; that is, in the commencement of the affection the impediment to vision is inconsiderable, and it becomes more considerable as the disease advances. The impediment to vision, however, never becomes entirely complete in cataract, however dense the opacity may be. If you suppose the lens to be densely opaque throughout, the capsule to be also opaque, and if you suppose, in addition to that, that the pupillary aperture should be closed, still a sufficient quantity of light would pass into the eye to render the patient quite sensible of the difference between light and darkness. The power, therefore, at all events, of distinguishing between light and darkness will be found to exist in cataract, and the presence, at least, of that power is necessary in order to prove that the retina is sensible. If the patient with cataract is unable to distinguish between light and darkness, we then conclude that, with cataract, there is combined amaurosis, or insensibility of the optic nerve, and consequently the performance of an operation would be of no use. In the earlier periods of cataract persons are able, sometimes, to read, to discern the figure and colour of objects, and even, sometimes, if the opacity be not very great, though it seems to occupy the whole of the pupil, the power of distinguishing large objects and colours still remains. Cataract is very often developed at first in the centre of the pupil, and then gradually extends to the circumference, so that you may have the central part of the pupil opaque, while the circumference remains transparent. Under such circumstances, the patient would be able to see well in a weak light when the pupil is dilated; while in a strong light, that is, when the pupil is contracted, he can hardly distinguish objects at all. I have seen a patient, while the face was turned towards the window, scarcely able to distinguish objects, while, when his back was turned to the window, he was able to read large print. Even when the cataract is complete, and the whole of the pupil is occupied by opacity, that opacity is most dense in the centre, and less so in the circumference, because the crystalline lens is thickest in its centre, and thinnest towards its margin; hence a patient, with cataract, can always see better when in a weak than in a strong light, because in the latter case the pupil is contracted, while in the former it is dilated. For the same reason cataract patients see better at dusk than in the strong light of the day. They also have vision considerably improved by dilatation of the pupil, by the use of belladonna, because that uncovers the apparently transparent circumference of the crystalline lens. In glaucoma and amaurosis, the degree of impediment to vision bears no direct relation to the appearance of the pupil, that is, when the opacity which you observe deep in the bottom of the eye is inconsiderable, you very commonly find vision very seriously impaired; you find the degree of injury to the sight much more considerable than could be produced simply by the opacity in the pupillary aperture, so that you conclude, very safely, that the state of vision depends rather on some alteration in the condition of the nerve than in the impediment which the opaque substance offers to the transmission of light.

A patient with cataract finds his sight impaired in this way; it appears as if a cloud, or a mist, were interposed between him and the objects he looks at; and this cloud, or mist, gradually increases in thickness, until the objects are completely concealed. In the case of amaurosis, very often vision is altered quite in another way. Now a cataract patient, for example, will see the flame of a lighted candle as if there was a cloud, or mist, about it, while a patient with amaurosis will, probably, see it confused, and spreading out into rays—altered in that kind of way.

Taking cataract as a genus of disease, we find that it may be divided into a great number of species; that is, that cataracts differ very much from each other in different instances, and, in fact, these differences are of importance, for they often lead to important differences in the mode of treating the complaint. We distinguish cataract, in the first instance, according to the part in which it is situated; hence the distinction of *lenticular*, *capsular*, and *capsulo-lenticular* cataract (in which both the capsule and the lens are involved in the disease), and the *morgagnian* cataract, in which it

resides in the morgagnian fluid. Now, respecting the latter, it must be considered almost a doubtful case, whether such a cataract exists or not; and, indeed, we can hardly suppose the morgagnian fluid to be materially altered without a corresponding change taking place in the lens, therefore I am almost inclined to leave that out of the enumeration of cataracts altogether; at all events, we may leave it out for all practical purposes.

Lenticular cataract may vary considerably in degree and consistency, and these differences are attended with different appearances of opacity. In the first place, there is *hard* or *firm* cataract—a state of the lens in which it has not only lost its transparency, but acquired a firmer consistence than it naturally has. This is the ordinary cataract of elderly persons. The colour of this cataract is that kind of light-yellow brown which is called amber colour, and the tint and colour are deeper in proportion as the consistence of the cataract is more firm; sometimes you may have it even of a still deeper colour, and then the cataract is very hard; generally speaking, however, it has more of the lighter cast, which distinguishes amber. The opacity in this case commences in the nucleus of the lens, and gradually extends to the circumference; therefore, in the beginning, although you can see that the lens is opaque, the patient can usually see very well, when the light to which the eye is exposed is not very strong; and sometimes, as the lens is generally rather diminished in size when thus hardened, the lenticular cataract appears to be situated at some little distance behind the pupil, more particularly if the capsule be transparent when there is a recognisable distance between them, and the iris moves very freely. Indeed I should have mentioned, that in cataract generally, if it be unattended with any other affection, that is, if the cataract is simply of the lens and its capsule, the iris moves as freely as it does in the healthy condition of the eye. I have already mentioned that a sufficient quantity of light passes through the lens to make an impression on the retina, so as to make a difference between light and darkness, and as much light will pass through it as will be necessary to cause a contraction or dilatation of the pupil, and in the case of firm lenticular cataract, you will see that the iris will move quite as briskly as in the natural condition of the organ.

Lenticular cataract may be *soft*; that is, the consistence of it may be such as is about natural, or it may be softer; it may be of the consistence of cheese or jelly—caseous or gelatinous cataract; or it may be even so altered in its substance as to be reduced to a thin fluid, like milk, and in this state when dilated, the opaque substance appears to the eye to have a kind of gelatinous or jelly-like consistence. Soft cataracts are larger in bulk than hard cataracts; indeed, as in the hard cataract the bulk of the lens is lessened, so in soft cataract it is rather augmented; you will find such cataracts come very near to the pupil, and occasionally even project into the pupillary aperture. In such cataracts, as the quantity of opaque substance is larger, the impediment to vision is more considerable, so that persons are not so well able to distinguish colours, and so forth, when affected with soft, as when affected with firm lenticular cataract.

In capsular cataract, you can distinguish clearly by the eye the difference in the texture of the opaque substance. In capsular cataract, it is a dense smooth membrane that is rendered opaque; a something very different from the soft fluid or jelly-like substance of the lens; so that when you look at it, you find that it is quite of a smooth and glistening appearance, something like the streaks which you see in the fractures of spermaceti, for instance. In this case, also, the opaque body is situated close to the edge of the pupil. It is so far forwards, that you see it when you look at the eye very obliquely, and it sometimes, as I have already stated, actually bulges into the aperture of the pupil. Now we are not much in the habit of seeing opacity of the capsule, without opacity also of the lens; and we see, if from any cause the capsule becomes opaque, that the lens also will sooner or later become so. It is not very uncommon to see the capsule first becoming opaque, and after a short time the lens becoming opaque also. We have not in any case, practically speaking, to deal with the capsule alone, the lens being transparent. Whenever the former comes into a situation to require an operation, the affection is clearly of both; and a great many cases are of this kind. Very commonly, also, when you have lenticular cataract, there is conjoined with it an opaque state of the capsule.

Capsulo-lenticular cataract is generally of a very considerable bulk, for the capsule not only loses its transparency, but it appears to thicken and swell, so that these cataracts are voluminous, pressing forward the iris, sometimes so large as to push the iris almost into contact with the cornea. Under such circumstances, the cataract mechanically interferes with the motions of the iris, the motions of which are in consequence rendered sluggish. You may find that the pupil hardly moves on varying the quantity of light which the eye is exposed to, and if you were not to look attentively to the points I have adverted to, you might suppose this sluggishness of the iris pro-

ceeded from the insensible state of the retina.

Cataract sometimes occupies only a part of the pupil, and not the whole. There are some uncommon cases in which the central portion of the lens is opaque, and the circumference is quite transparent; this is one form of congenital cataract, and in that case the pupil is not circular. In congenital cataract, also, there are portions of the lens opaque, with other nearly transparent portions intervening.

I have observed that we do not often find capsular cataract without opacity of the lens. Now capsular cataract sometimes exists after a lenticular cataract has been removed. An opaque lens may be removed or taken away by absorption, and a capsular cataract may be left. In such a case, if the opaque body is merely a thin layer of the capsule, of course it cannot at all press against the iris; it is small in size, and the anterior chamber is usually very large.

Cataract may occur at all ages; sometimes it exists at the time of birth—is congenital; or it may take place at any period; it is most frequently, however, observed to take place after the middle period of life.

Cataract varies in its consistence, as I have already mentioned. You never find a hard cataract in young subjects. The lens in cases of congenital cataract, or in cataracts that occur in persons before the period of puberty, is usually soft; at all events its consistence does not exceed the natural consistence of the organ; hard cataracts are found in elderly subjects; soft ones, however, sometimes occur in them, though you never have the opaque lens hard in the young subject. Cataracts differ by being either simple or complicated; in the former case, the affection consists merely in the alteration I have mentioned in the lens or its capsule; in the latter there are, at the same time, other affections of the eye. When the cataract is *simple*, you then find that the retina possesses its natural sensibility; you find that the iris performs its regular motions, and that the pupil consequently exhibits those changes which the variations in the quantity of light ordinarily produce. If cataract is complicated with amaurosis, then you will find, probably, that the patient has no perception whatever of light, that the iris is motionless, and that the pupil remains permanently in one state. Cataract may be complicated with glaucoma, and the history of the case will generally throw light both upon this complication and that of amaurosis; the circumstances under which the disease has arisen, will point out to you pretty clearly, if you examine them accurately, whether the case be one of simple cataract, or presents either of these complications. Glaucoma, the disease I have already described, consisting in either acute or chronic inflammation of the vitreous humour, produces in the end opacity of the lens. At first, the change which is seen in the pupil, depends merely on the alteration in the condition of the vitreous humour, but after a certain time the lens participates in that change, and becomes converted into a dirty white, or greenish cataract; and such cataracts are called

Glaucomatous Cataracts, the hue of them differing materially from the hue which we distinguish in the simple cataract I have already described. These glaucomatous changes of the lens are also attended with other changes and other appearances of the eye, which materially assist in distinguishing the nature of the complaint. In those cases the lens is very commonly pushed forwards into the papillary aperture, sometimes quite jammed against it, and sometimes protruded against the surface of the cornea. The iris is altered, having a dull leaden tint; the pupil is dilated, the cornea is dull and heavy, something like a dead person's, and the external vessels are very commonly knotted and enlarged like varicose veins. Such a combination of circumstances points out that the cataract is merely one of an extensive series of changes affecting the organ of vision.

Causes.—Cataract may be produced by a wound of the crystalline lens, or of the capsule. Whenever either of these parts is wounded, however slight or inconsiderable the wound may be, opacity of the lens is the consequence. If you merely puncture the capsule with a fine needle, it will become opaque. Wounds which penetrate the lens, or the capsule, generally are attended with a good deal of inflammation, so that usually the capsule becomes opaque as well as the lens, and, under this change, the latter naturally undergoes absorption. The effect of such wounds is, first, to render the lens opaque, and then to lead to its absorption, so that in progress of time, and without any operation, you will have the lens, which has been rendered opaque by a puncture, removed by absorption, the opaque capsule being commonly left behind. The lens and capsule may be rendered opaque by inflammation; and internal inflammation of the eye, if not arrested, will generally produce this effect. Such cataracts are usually attended with attachment of the margin of the pupil to the capsule of the lens. Occasionally cataracts form under circumstances in which there are symptoms of congestion and of determination of blood to the eye and head—uneasy sensations about those parts; and this is particularly the case with the capsulo-lenticular cataracts of the soft kind. In a great number of

instances, however, cataract takes place under circumstances which do not enable us to discern its immediate cause, so that we can by no means say that opacity of the lens and capsule is generally a consequence of inflammation. The analogy, indeed, between the changes that occur in the transparent parts of the eye, and those that take place in consequence of inflammation of the other parts of the body, might lead us *a priori*, to suppose that this would be the cause; but, in the instance of cataracts which occur in elderly persons, we see them taking place in individuals in the most perfect health, and without any other change whatever of the appearance of the eye, or any visible derangement in the vascular state of the organ, the alteration being simply the loss of transparency in the lens and capsule, and we really cannot, in those cases, say what the immediate cause of the change is, or point out clearly the nature of the affection.

Treatment.—The opacity of the lens or capsule does not admit of being altered in any degree, much less of being removed by any kind of external application to the eye, or by any species of internal treatment. All local applications and internal remedies are inefficacious in the treatment of cataract, except, indeed, so far as may relate to some particular symptoms connected with it; but we do not know of any application, or of any kind of treatment, that is capable of diminishing the opacity of the lens or capsule, much less of removing it entirely. We necessarily come then to the performance of a surgical operation, for the purpose of getting rid of the opaque substance which is situated in the axis of vision. For a long period the operation performed for this purpose, consisted in pushing the lens downwards, so as to place it below the inferior border of the pupil, into the vitreous humour. An instrument was carried into the eye at its outer side, placed on the upper part of the lens, which was thus pushed downwards, so as to place it below the pupil into the vitreous humour, and that operation was termed the operation of *depressing or couching the cataract*. This was the operation performed from a very early period of the surgical art, and until about the middle of the last century, when another operation was introduced, which consisted in making a division of the cornea sufficiently large for the lens to pass out through it—in dividing the capsule of the lens, so as to allow the lens to escape, and then squeezing it out through the pupil, and letting it escape at the wound in the cornea. In this mode of performing the operation, the lens is actually taken away from the interior of the globe of the eye, and this is termed the operation of *extraction*.

A third mode of operating consists in wounding the lens and the capsule, leaving the lens in its situation in the eye to be removed by the process of absorption which I have already mentioned invariably takes place after a penetrating wound of this kind; this has been called the operation by *solution or absorption*, where the lens is not pushed out of its situation, but where its substance is wounded, so that it is afterwards removed by the absorbents from the interior of the eye.

This last operation has been performed in two modes, either by introducing the instrument by which the breaking up of the lens is effected, in the same way and at the same point as it is introduced in the operation of depression, viz. behind the iris, or by carrying it into the eye through the cornea and pupil, that is, in front. The latter has been called the *anterior* operation, the former the *posterior* operation, and these are the various modes employed for the cure of cataract.

Before you proceed to the performance of any kind of operation whatever, it is necessary that you should carefully prepare the patient for it; that you should take care that the patient be in a good state of health at the time of performing it, and in a state in which there may be no risk of inflammation from the operation. The principal cause of failure in the operation for cataract is the occurrence of inflammation in consequence of the operation, which is to be regarded as a serious one, for it produces a penetrating wound of the globe of the eye, extending into the interior of the organ; and when inflammation comes on as the result of that operation, it is an inflammation involving the internal parts of the eye; and if it be considerable, the consequences are likely to be serious. You must take care, therefore, to have the patient in such a state, that inflammation will not be likely to ensue from the operation. In a doubtful case—that is, where you are uncertain whether the retina may possess its due sensibility, or where, from the age or state of health of the patient, you entertain doubts whether the operation will be attended with a successful result, you must proceed very cautiously, and perhaps be contented rather with employing palliative measures (such as the circumstances may admit of) than run the risk of losing, by the operation, that small degree of sight which the patient may possess. The dilatation of the pupil, by the employment of belladonna, often improves vision considerably under these circumstances; and if a person possesses an imperfect degree of sight, it will be better that he should be contented with the palliative relief which this remedy affords, than run the risk of having vision entirely

destroyed. It is true he may not see much; but if he sees very little, he will hardly be willing to lose even that little by the operation.

In the first place, I will show you the operation by extraction. A great variety of instruments have been employed for the performance of this, and of the other operations upon the eye. The truth is, that in the performance of the operation of extraction particularly there are considerable difficulties, especially in certain parts of the operation—difficulties that can only be surmounted by considerable practice, so that this is not an operation that is performed by medical practitioners in general; it does not often happen to practitioners to have a sufficient number of operations of this sort to perform, to enable them to acquire the necessary dexterity for performing it well. It is not necessary for me to enter into a description of the various knives that are used in performing the operation, it is sufficient for me to mention what I think the best, and that is a knife of the triangular shape which I now show you, and which is commonly known as *Beer's knife*. It is sharp-pointed, the basis of the triangle being towards the handle, and the two edges converging to the apex or point.

The object you have in view in the extraction of cataract is to make an opening in the cornea, large enough to allow the lens to pass out, and for this purpose you find it necessary to divide about one-half of the cornea. The circular line which I now draw upon this board represents the cornea, and the line which I have drawn within it, at the lower part, represents the extent of the cornea to be divided. You divide half of this membrane, carrying the incision near to the circumference of the cornea, that is, near to the point where it joins the sclerotica. I have here made the representation as if the section were to be made at the inferior half of the cornea; but it may also be made in the superior half. There is this advantage in dividing the superior half, that it enables you to operate on the patient's right eye with the right hand; for if you divide the lower half of the right eye, then you must divide it with the left hand. In whichever part it is divided, you must get sufficient space for the removal of the lens. The chief object, whether the division be of the inferior or superior, or lateral half, is, that the opening may be sufficiently large to allow the easy escape of the lens from the eye. You must have the patient seated before you; place yourself on a seat opposite him, of such a height as to give you a free use of both hands; the upper eyelid must then be raised by the assistant, standing behind the patient, while you depress the lower eyelid with the fingers of the left hand, holding the knife in the right. At the same time that you depress the lower eyelid with the fingers of the left hand, you can sufficiently steady the globe of the eye to prevent it from rolling about when touched with the knife, and this is an important point. If you were to leave the globe at liberty, when you touched it with the knife, it would immediately turn inwards; you must, therefore, fix it, and you can fix it quite steadily (giving the patient very little pain), by just applying the ends of the two fingers against the surface of the conjunctiva, which gives you the complete power of fixing the globe. The operation, we may say, consists of *four* parts. You first carry the knife through the cornea, beginning on the temporal side of the eye; in doing this you must carry the blade parallel to the iris, for if you hold it obliquely, it may pass through the cornea without going into the anterior chamber. The second part consists in carrying the instrument steadily across the eye, with the flat surface parallel to the iris; it thus passes out of the anterior chamber, opposite to the point where it entered, which is the third step; its breadth being such, that in doing this it cuts through the inferior part of the cornea sufficiently; or if you find that it passes without dividing the inferior part of the cornea, you may give it a gentle movement downwards. You must not do this very rapidly, for you will recollect, that the muscles are in a state of spasm, and may force out the lens, and perhaps the vitreous humour at the same time, if you make the division very rapidly or forcibly. Carry in the knife on the temporal side, and bring it out on the opposite side in front of the iris; then, having done this, you have nothing further to do than merely to push the knife straight on, and its breadth is sufficient to divide the confined part of the cornea. When you have made this incision, and let out the aqueous humour (for the aqueous humour flows out of course when the cornea is thus freely divided), then you must make an opening in the capsule of the lens, in order to let the lens out, and this is done by a small instrument, called a *curette*, sometimes made of gold, with a cutting edge, and which you introduce carefully under the flap of the cornea, and carry through the pupillary opening, and by pressing it and moving it gently backwards and forwards it divides the capsule of the lens. Introduce the curette with the convexity towards the edge of the cornea, so that it may not hitch in the cornea or iris. Now that the cornea has been divided, and the capsule opened, the lens will escape with the greatest ease.

When you compare the size of the lens with the size of the pupil, you would suppose that the lens would not easily pass through the pupillary aperture; however, the iris is very extensible, and gives way to the passage of the lens; it seems as if it would be torn by it, but it is not; it allows the lens to come out, and then contracts. After this part of the operation, you allow the patient to rest a little, and then take the opposite end of the curette, which consists of a small silver spoon, and press the upper eyelid with it, while you have your fingers on the lower part. The lens now passes out, and the flap of the cornea will fall down, and subsequently unite by adhesion, just as a simple incised wound will unite in any other part of the body. After the lens has escaped in this way, and the flap of the cornea falls down into its proper situation, nothing is wanting in the nature of adjustment, for if the operation is well performed the eye becomes adjusted of itself, the pupil contracts, the flap of the cornea is laid over it, and the patient is directed gently to close the eyelids as if asleep; after this place a thin, soft rag, dipped in water, over the eye, confining it loosely by a single turn of bandage fastened to the night-cap; then let the patient go to bed, keep himself perfectly quiet, take only spare diet, and adopt all means to prevent inflammation. Under favourable circumstances the cornea becomes adherent in about twenty-four hours, and in the course of three or four days, perhaps, the patient will leave his bed. It is not necessary that he should keep in bed longer, and in a few days more he is able to open the eye, which hardly shows any trace of the operation, except the absence of the opaque substance. In the case of a young or robust subject, it is expedient to take blood from the arm either the morning before you perform the operation, or after it, in the evening of the same day. There may be some cases in which this may not be required, but if you consider what is necessary to be done in the case of a wound of the eye, you would do this as a measure of precaution. I think it, indeed, right to do the same in this case as I should do in the case of an accidental wound of the eye, unless there should be some particular circumstance rendering it unadvisable, and therefore I am in the habit of taking blood from the arm either in the morning before the operation or in the evening after it, and this becomes more particularly necessary if pain, uneasiness, or any symptoms indicating the occurrence of inflammation, should present themselves; and you must watch the patient very closely for the first two or three days, in order to anticipate the occurrence of inflammation, by the active antiphlogistic treatment.

The operation of *couching*, or *depression*, is exceedingly simple, consisting chiefly in carrying a needle behind the iris, introducing it about two lines behind the edge of the cornea, and pressing it forwards into the pupillary aperture, so that you can see it enter. Where I am now pointing to in this diagram is about the situation to which you push it forward; you then push the lens downwards to about the middle of the globe; you introduce the needle here a little beyond the middle. You must of course carefully compare the length of your instrument with the size of the globe of the eye; you must also consider that you have not much space to push the lens down into, and that all you have to do is (using the instrument as the lever, the fulcrum being the point at which it has gone through the coats of the eye), to push its point downwards and a little backwards, until the upper edge of the opaque lens is below the middle of the globe; if you push it deeply down you may press it against the retina, and probably produce amaurosis. After thus pushing it down, you gently elevate the needle, in order to see whether the lens remain there—to see that it does not rise again, for sometimes when the lens is pressed down in the operation for cataract it rises again; you push it down, I repeat, hold it a little in that situation, and when you see that it is sufficiently impacted in the vitreous humour, you draw the needle out of the eye. The idea which was formerly entertained of the physiology of the absorbents was not a very clear one, so that it was supposed that the lens remained in this way in the vitreous humour, and was liable to rise again at any time that any particular motion of the head, for instance, might throw it from its new position into its old one; it is now, however, ascertained, that it is entirely taken up by the absorbents, so that eventually depression, like extraction, removes the lens from the eye altogether.

In the operation by solution, or absorption, you introduce the needle as you would do in the operation of depression; in the case of a soft lens, you move the needle a little about in the substance of the lens, and freely lacerate the anterior portion of the capsule, by which means the aqueous humour has access to the substance of the cataract, and under these circumstances it is found that the lens is slowly removed by absorption. This operation very frequently requires repetition; the process of absorption does not go on so fast as we wish; there may be some opaque portion left behind, and it is a particular advantage of operating with the needle in this way, that

you can repeat the operation over and over again without doing much mischief to the eye. In the operation of extraction, the mischief is considerable if inflammation comes on, for the sight is lost, and you have not an opportunity of finishing what might otherwise be done afterwards; but the operation I have now described is very simple, and though it may be necessary to repeat it even three or four times, you at last remove the cataract without injury; you must, however, be cautious in doing this, so as to avoid any thing that may cause amaurosis, and be particularly careful not to dislocate the lens, or displace it from its natural connexions with the iris and vitreous humour, for if you put it into a situation to press against the iris, inflammation of a serious kind will be the result. I consider the best mode of performing the operation by solution to be, by introducing the needle behind the iris; when you introduce the needle through the cornea, the escape of aqueous humour presses the needle against the iris, and interferes a good deal with the performance of the operation; it is by no means so eligible as the other mode of performing it.

The three operations I have now mentioned, that is, the operation of extraction, of depression, and of solution, are each of them applicable to certain cases of cataract; we cannot, therefore, say that cataract should be always treated by one or the other of those operations, and it is a foolish question to ask, whether extraction is preferable to depression, or whether depression is preferable to solution; each of them is preferable in certain particular instances, and we must endeavour to ascertain, before operating, the nature of the cataract, in order that we may determine which of these proceedings may be most advantageously employed. The operation of extraction is best suited to cases of hard cataract, because these are absorbed with the greatest difficulty; you remove the cataract in these cases, by extraction, entirely from the eye, and therefore all the long process of absorption is got rid of. In the hard cataract, therefore, of old persons, which form the largest number of cases, I consider the operation by extraction the best; but I should observe to you, that this operation can only be done by persons who possess a certain degree of manual dexterity, which can only be acquired, in the first place, by repeatedly doing it on the eye of the dead subject, and then on the eye of the living; it is really not an operation the ability to perform which can be acquired without having had the means of doing it a good many times. The operation of depression is suitable to those cases of hard cataracts in which extraction is not deemed advisable, and where the eye is deep-seated—where the eyebrow is considerably over hanging the eye—where the aperture of the eyelids is small—where you cannot get a free exposure of the pupillary aperture, or where you cannot sufficiently trust your own dexterity. The operation by solution is particularly applicable to cases of soft cataract; it is applicable to cases of cataract in young subjects, which are always soft; and here I may mention to you, that in cases of *congenital* cataract, that is, those cataracts which exist at the time of birth, or those which are observed within a short period after birth (for we are not sure that in all those cases which are called congenital the cataract strictly exists at the time of birth), in all those cases it is best to operate early—a month, six weeks, or two months from birth, and as the cataract is always soft, to use the needle, introducing it behind the iris, freely dividing and breaking up the opaque body and lacerating the capsule. At this time of life inflammation is not easily excited. Unless the operation is injudiciously performed, no inflammation results from it. Inasmuch as the aperture is small, and it is necessary to get a good exposure of the eye, you find it necessary to fix the globe by *Peltier's elevator*, which you introduce under the upper eyelid, fixing it against the upper part of the orbit. In young subjects, and sometimes in adults too, this instrument may be held by an assistant, or by the finger of one hand while operating with the other; in other respects the operation on the infant is the same as that in the adult.

When the opaque lens is got rid of, whether by the one or the other operation, patients who recover vision find it necessary to use spectacles. The lens is an important part of the apparatus for refracting the rays of light, and when it is lost you must supply the deficiency by optical means; and there are strongly convex glasses, called *cataract glasses*, which are necessary for patients who have undergone the operation. Although, therefore, vision is often recovered to a considerable extent by this operation, the aid that is to be afforded by those glasses is still required; and as the eye, after the operation, does not possess the same accommodating power that it had before, the patient finds it necessary to have glasses of two kinds, one pair more convex for near objects, to use for instance in reading or writing, and one pair less convex, which he uses for looking at distant objects.

NORTH OF ENGLAND
MEDICAL & SURGICAL JOURNAL.
No. 1, *August*, 1830.

Quinine, externally, in Ague.—A case of quotidian I may mention, which was rapidly cured by the sprinkling of a few grains of sulphate of quinine upon a blistered surface, prepared for the purpose. It is hardly necessary to say that this plan is originally French, but has not, as far as I know, been generally followed in England.—*Ib.*

Treatment of Hæmoptysis.—Hæmorrhages of the atonic or passive character, arising from debility and the consequent giving way of the extreme vessels, will on no account admit of venesection. In hæmoptysis, or the spitting of blood, there is room for a double error. First, the blood does not always come from the lungs, but, occasionally, from the back of the nostrils, the pharynx, or the fauces; and, when small in quantity, will prove of no consequence, being easily arrested by styptic gargles or lotions. Secondly, when the blood does come from the lungs, if the pulse be slow and feeble, and if there also exist other signs of general debility, then venesection, especially if repeated, is almost certain death. I recollect a case of this kind, in which venesection, acetate of lead, sulphate of zinc, and sulphuric acid, had all failed, and in which I had the pleasure of effecting an early and complete cure by the exhibition of pretty large doses of the sulphate of quinine.—*Ib.*

Deformities of the Human Fœtus.—It is a generally-received opinion that the fœtus in utero is liable to be affected by any thing that greatly agitates the mother, and that the injury to the child derives its character from the object which affects the parent; as when a mouse or a bunch of fruit has been thrown at the mother, and its image is supposed to be traceable on the infant, or when the reception of a wound, or the sight of a mutilated object, appears to have affected alike the parent and the offspring. These injuries are said to be capable of happening *at any time before birth*. The facts alleged respecting these deformities are false. During a practice of more than a quarter of a century, I have never yet seen any mark that bore such a resemblance to the supposed object, that the same opinion would have been pronounced concerning it by any three indifferent persons who were unacquainted with the fears of the mother, or the incident said to have made the impression. A distant resemblance may have existed, but the disparity has been very great. I have two objections to make against the possible occurrence of such causes and effects. First;—The growth of the fœtus is regular and simultaneous in all its parts. If we examine a fœtus which is deformed by an additional member, that member appears to have been created at the same time with the rest. In the fingers, for instance, the nails appear on them all at the same time. At whatever period of pregnancy the infant is born, there appears to be an equal maturity in the natural and preternatural parts. Affright then of the mother cannot have produced the deformity. Again; though the bones of the fœtus will remain for years in the body of the mother, when enveloped in their membranes, without corruption, and when separated from their coverings will make their way gradually through the belly or anus of the mother after considerable intervals of time; yet it was never known, I believe, that the bones of any fœtus mutilated by natural deformity were discharged along with the fœtus itself. In all deformities that have the resemblance of a wound, we find the parts healed in a manner not agreeable to the natural process of healing, as in hare-lip. There is no scar. The proper skin of the lip covers the whole. The deformity then could not have been produced after the lips were completely formed. Anatomy makes us acquainted with equally irreconcilable circumstances. The dissection of a case of spina bifida shows, that no injury after the spine was perfectly formed, could have brought it into that state which constitutes this disease. There is abundance of evidence of a similar kind. And what kind of fright must that be which could deprive a fœtus of its brain, heart, stomach, and lungs? But, secondly; I know of no authentic testimony either that these deformities are commonly preceded by some fright of the mother, or that fright of the mother is usually followed by malformation in the child. My own experience directly contradicts them both. In no case of deformity, where I have had an opportunity of inquiring early into the condition of the mother during pregnancy, has there occurred any circumstance which could lead me to attribute the deformed state of the child to the fears of the mother. Nay, in almost all the cases with which I have met, the mothers have assured me that they never were frightened or hurt during pregnancy. On the other hand, I never yet, that I remember, saw such fright followed by a deformity. In short, according to my own experience, women are more apt to have deformed children when they are not frightened during pregnancy, than they are when such frights have occurred; but I regard this as mere accident. Some cases will occur in favour of the common opinion, but

they deserve no regard.—(Condensed from an Essay by the late *Mr. Hey, of Leeds*, now first published.)

Theory of the Sources of Animal Heat.—The bodies of animals are endowed with the faculty of preserving the same heat in every variety of climate. Though this subject has been an object of curiosity in all ages, it is still involved in obscurity. In almost all the theories which have been constructed, and particularly in the view which I am about to submit, the lungs, in the mammalia at least, are supposed to be the organs by which the heat is evolved, and regulated, and transmitted through the body. The elasticity of their structure is of such a nature, that when extended into a larger volume, as in the act of inspiration, a multitude of internal cavities similar to those which are found in sponge, &c., must be formed, the dimensions of which will together be equal to the difference between the dimensions of the lungs in their collapsed and expanded states. These cavities, which are all of equal calibre, and consist chiefly of the bronchi, and the pulmonary arteries and veins, with their ramifications, must necessarily be occupied by some extraneous substance. The ramifications of the bronchi, or air-vessels, seem to compose the chief part of the pulmonary structure, and freely communicate with each other. The blood-vessels are the pulmonary arteries and veins, the capillary terminations of which have two communications which require to be noticed. The arterial capillaries have a communication with the venous, through which the blood circulates from the arteries to the veins. Besides these, the pulmonary arteries, as well as those belonging to the larger circulation, have terminations through which red blood is not transmitted. These open into the internal surface of the bronchi, and, from their office are called exhalants. It is now well established, that the veins are also well furnished at their extremities with openings which do not admit, in ordinary circumstances, the red part of the blood. That the pulmonary veins are furnished with such openings, sufficient proof will be supplied in the sequel. These openings perform an office the reverse of that of the arterial exhalants. They take up substances from the surface of the bronchi, and on that account have been termed imbibers. To enable these vessels to accommodate themselves to the various sizes required by their office, there must, then, be passages of supply and discharge for the materials which fill them on inspiration. The air-vessels are supplied through the windpipe, but it is not so evident from what sources the materials are drawn to allow the blood-vessels to expand, or through what channel their contents are discharged. The materials cannot consist of blood, for no blood can enter the pulmonary arteries, or pass out of the pulmonary veins, except through the portals of the heart, and these portals do not open and close in correspondence with the required periods of supply and discharge. The movements of the heart are not timed by the movements of the lungs. Four pulsations of the heart may generally be counted during each complete respiration. It may indeed accidentally happen, that a discharge of blood may be made into the pulmonary arteries, at the moment in which inspiration commences, but, at the same moment, an equal quantity is abstracted from the pulmonary veins to fill the enlarging auricle of the left side of the heart. Whenever, then, a quantity of blood is thrown into the chest, an equal quantity is, in the same period, discharged out of it, and also every discharge of blood from the thorax is accompanied by the entrance of an equal quantity through another channel. The quantity of blood therefore at any time contained in the lungs does not appear to be at all modified by respiration.

Our search, therefore, for other channels of supply, has led us to the following view of the origin of animal heat.

As the blood-vessels of the lungs must be filled, the air received into the windpipe will not terminate its progress with the bronchi, but will pass through the openings (now greatly enlarged) between the bronchi and pulmonary veins, will enable the latter to assume their proper dilatation, and will intimately mingle with the blood in a thousand minute passages. Partly by mechanical, and partly by chemical agency, a portion of this air, while the blood with which it is commixed is still in the lungs, is converted from the aerial into the fluid state. The consequence of this conversion is well known to be, an evolution of heat. But all the inspired air is not converted into liquid in the pulmonary veins. After the passage of the blood out of the lungs, a portion still retains the gaseous condition; it is mingled with the blood in the form of small globules, and while it circulates through the system, is gradually converted into liquid, and evolves heat, and preserves throughout the temperature of the body. The impurities of the body are at the same time absorbed into the blood, and occasion the colour of the venous fluid.

During inspiration, the blood in the pulmonary arteries is subjected to a diminished pressure. A part of it is consequently converted into air, and reduced in temperature. At the same instant air in the veins is converted into fluid. Thus the heat of the blood in the arteries is kept up at the

temperature at which the ebullition is continued. The impurities of the venous system most readily, in these circumstances, assume the gaseous form. By the formation of an elastic fluid, the pulmonary arteries are enabled to assume the augmented calibre, to which they are urged in consequence of the expansion of the lungs. In the succeeding expiration, the lungs press these vessels into their former calibre, and expel some of their contents, the aerial matter finds a ready exit through the capillary vessels of arteries which open into the bronchi, and which, in ordinary circumstances, do not carry red blood, and then makes its exit through the windpipe, the blood shows its liberation from adulteration by resuming the vermilion hue, and is again fitted to be the vehicle of heat and nutriment to the whole system.

According to the preceding view, then, the greater part of the air which we inspire, is received into the blood-vessels of the lungs, is mingled with their contents, and gradually changes into liquid as it circulates. The part of the air which has been inspired is discharged from the windpipe in an undecomposed state. On the contrary, the greater part of the air expired has proceeded from the venous blood returned to the lungs, and consists of the usual gaseous products of the vegetable and animal fermentation, —nitrogen, hydrogen, carbonic acid gases, and a little vapour. Accordingly, an examination of the chemical relations between the atmosphere breathed and the lungs, tends to prove that nitrogen and carbonic acid gases can find access into the bronchi without entering by the windpipe, and that there is no source whence these gases could have sprung but the blood in the pulmonary vessels, and that the air inspired may find its way from the bronchi, without being transmitted back through the windpipe or without being decomposed. What further proofs are there, then, by which the existence of the supposed passages for the air from the bronchi into the pulmonary veins is believed to be established? First, it is rendered probable by the analogy of structure. That openings exist between the venous capillaries belonging to the larger circulation, and that the principal part of the office of absorption is performed by these capillary ramifications, is rendered probable by the explanation of the causes by which venous blood is moved, and has been established beyond all doubt by Majendie. There is every reason to suppose, that the veins of the lungs are constructed in the same way with the veins in other parts of the system, and that such ramifications are to be found between those veins and surfaces of the bronchi. Analogies are also supplied by comparative anatomy. The air-vessels in many insects, as in the locust and silk-worm, are observed to communicate freely with the blood-vessels, from which the return of air or any liquid is prevented by well-adapted valves. Substances, also, capable of being inspired, and of indicating their presence by sensible qualities when mixed with blood, as fine powder of stone and of metal, were found after death, by Bertier of Bourdeaux, to have obtained a passage from the lungs into the pulmonary veins, and the left chambers of the heart. The next question is, What becomes of the air which is admitted into the pulmonary veins during inspiration? The air taken into the blood-vessels in the way now alleged must be received in infinitely-divided portions, and intimately mingled with the blood. It may be absorbed by the blood, it may be chemically combined with some parts of it, or it may be mixed with it, still retaining its gaseous form. There is every reason to suppose that each of these processes takes place in part. By the operation of the two first, a portion of the air will be changed from the gaseous to the liquid form while it is still in the lungs, and heat will necessarily be evolved, but the temperature of the blood in the lungs is prevented from rising beyond a certain degree by a process which has already been alluded to. The remaining portion of air drawn into the pulmonary veins, is transmitted, with the blood in which it floats, and heat is disengaged. This change may not be supposed to be completed before the blood has finished its journey in the arteries, and then its colour is converted from vermilion into purple. Loaded in the manner supposed by Dr. Crawford, and in which I am disposed to acquiesce, with the products of decay from the body, the blood returns to the lungs, where these products are discharged from it into the bronchi, and thence out of the system through the windpipe, in the form of impure air. Thus purified, it is transmitted into the pulmonary veins and resumes its vermilion hue. —(*Condensed from the paper of Dr. Carson of Liverpool.*)

Cure of Subcutaneous Nævus by the Seton.—The following cases are published by Mr. Fawdington of Manchester. The seton was employed instead of either the knife, caustic, or ligature, in consequence of the magnitude and situation of the tumours, and if the size of the nævus be such that the case precludes the employment of either of these three remedies, Mr. Fawdington is of opinion, that the seton may be adopted with greater certainty of success than the tying of the arterial trunk which supplies the part to which the tumour is attached. He suggests also that the seton will be followed by the least disfigurement, little more

than scars produced by the needle remaining. In employing the seton, it is necessary (says the writer) to secure two material objects, the suppression of hemorrhage from the vessels divided by the needle, and subsequently, a degree of irritation sufficient to excite inflammation and suppuration throughout the diseased mass. The first may be accomplished by having the skain of thread large enough fully to occupy the apertures made by the needle; and the second, by using a needle that will admit, relatively to the dimensions of the tumour, a seton of considerable proportions. If however the irritation fall short of the proposed object, easy means are afforded, by the newly-established channel, of applying other irritants, or even caustic, to the residue of the morbid growth, without destroying the integument, which in Tetlow's case it will be seen was required, and answered the best expectations. The first case was originally treated by throwing a ligature around the carotid, after the example of Mr. Wardrop, but, although that plan arrested the increase of, and even a little diminished, the swelling, it failed in its cure. The plan recommended by Mr. Abernethy, the combination of pressure with cold, was next tried, but it seemingly excited the growth of the disease, and it then occurred to Mr. Fawdington, that a seton introduced into the tumour might occasion a degree of inflammation throughout its substance, sufficient to destroy its peculiar structure. The following was the situation of the tumour: It had evidently taken deep root in the space between the angle of the jaw and the mastoid process, being in this part, more firmly adherent than is usual in subcutaneous nævus, and extended inferiorly to at least three quarters of an inch below the level of the base of the jaw; anteriorly, to a point midway between the angle and symphysis; and backwards, so that its most prominent part would project a little more than an inch beyond a perpendicular line drawn through the *meatus auditorius externus*. Above, the growth had proceeded over the side of the face, as far as the zygomatic arch, closely surrounding the ear, the lobe of which was elevated and displaced by it. The whole formed an oval tumour, which measured over the surface, in the direction of its long axis, five inches and a quarter, and transversely four inches. It was soft and compressible, without pulsation, and of a purplish aspect on its surface, with large veins running conspicuously over it. The patient, James Gaskell, a fine infant, was first seen in June, 1825, and was then three weeks old. The following is the account of the case, from the 10th of the following September, when the seton was first employed.

Case 1. Sept. 10th.—I this day passed a skain of common sewing thread through the long diameter of the tumour by means of a saddler's needle, observing the precaution, that the skain should be of sufficient bulk to close and compress the apertures so as to prevent hemorrhage. No dressings were applied; but the mother was directed to bring the child, as soon as the orifices should discharge or tumefaction take place.

13th.—The tumour tense and inflamed, especially at the superior part; but no discharge from the track of the thread. The child fretful, but not distinctly feverish, and apparently suffering little pain in the swelling. The mother is disposed to attribute its fretfulness to disorder of the bowels, which came on two days ago.

16th.—Copious discharge of a healthy-looking pus; general tumefaction diminished; but abscess forming in the upper part of the swelling, which will probably open externally. The diarrhœa has ceased. The child takes the breast freely; and, excepting a slight febrile irritation, there are no symptoms to contend with. A poultice ordered to be applied.

20th.—The swelling considerably diminished, especially at its upper part, resembling rather the site of an abscess than of an organized growth. The abscess referred to in the last report, has given way, and a slough, like that which exists in common boils, protrudes at the aperture. The discharge from the seton has been copious, and, from the irregular excavated feel of the parts beneath the surface, it is presumable that other small abscesses have opened into its track. The lower third of the tumour is somewhat inflamed and tumid, but retains its other characters as nævus. It is therefore evident that here the presence of the seton has not been followed by the same degree of irritation as above, owing principally to the relative position of this part with the rest, not allowing it to be so completely transfixed in the first operation as might have been wished. The child sustains the process with little constitutional disturbance; its fever has subsided, it takes the breast as usual, and, though looking pale, is, in the main, tolerably well. The seton ordered to be withdrawn and poultice continued.

26th.—Two or three small sloughs have escaped from the apertures made by the needle, and these are now closing, as well as that occasioned by the abscess. No traces of the morbid structure are visible in the upper two-thirds of its original situation, except that the circumjacent veins are larger and more conspicuous than natural. The lower division of the tumour, however, has manifestly undergone no change; the inflammation which invaded it having disappeared, it now wears its original aspect, showing, that unless some other step be taken, we can ex-

pect no further advance towards the cure. The health of the child is little impaired. Ordered that a seton be passed transversely through the residue of the tumour, and treated as on the former occasion.

Oct. 10th.—The operation has produced similar effects to those above described, viz. inflammation, suppuration, and destruction of a great part of what remained of the tumour. A part, however, of about the size of an almond, has escaped the irritation, and still presents its former appearance. This is situated below the ear, and so near the line of the seton, that it will not be difficult to reach it through that channel with the caustic. The child is pale, somewhat wasted, and the pulse accelerated, though the mother says that it feeds well, sleeps, and has not suffered, according to her judgment, any severe constitutional effects. The seton to-day withdrawn, and the nitrate of silver applied, through a canula inserted into the track, to the remaining portion of nævus. A poultice afterwards. The child recommended to take a little beef-tea, in addition to the breast, and small doses of sulphate of quinine.

28th.—The little patient was not brought again until to-day, and the following is his condition. The apertures are nearly healed, and there is a transverse depression marking the course of the seton. Immediately above and below this, the integuments are indurated and thickened, but not a vestige of the nævus remains, except at the point alluded to in the report of the 10th, where it presents nearly the same appearances. The integuments between the zygomatic arch and base of the lower jaw have not yet resumed their natural hue, being somewhat purple, and firmly agglutinated to the subjacent parts. Yet the vessels surrounding the site of the disease have decreased both in size and number, so as to leave nothing to be feared as to the regeneration of the tumour. The general complexion of the child is not much improved; it is pallid and waxen, but he has gained considerably in flesh, and is regarded by his parents to be in good health.

Feb. 2, 1826.—The event of this case is very satisfactory. There remains not a trace of the morbid growth. The remnant of it, which was described as existing behind the angle of the jaw, has quite vanished, and the integuments have become comparatively loose and of natural aspect. The cicatrices are insignificant, scarcely disagreeable to the eye; so that, if they had not been accompanied by some degree of puckering and depression, they would probably have escaped general observation. On taking a front view of the face, a slight irregularity is observable in the contour of this side; it appears also rather fuller than the opposite, but not so much so as to produce any marked deformity.

The disappointment in the result of tying the artery, and an unexpected degree of success from the process by the seton in this case, induced me to adopt the latter in the following instance; a choice between the two, in consequence of the size and situation of the tumour, being the only advantage left to me.

Case 2.—Elizabeth Tetlow, a vigorous-looking child, ten months old, has had a small stationary subcutaneous nævus on the forehead since birth. About two months ago it took on the disposition to grow; and at this time (Feb. 12th, 1827) occupies the left half of the front encroaching on the eyelid, and extends over the anterior half of the corresponding parietal bone. It presents the purely venous character; there is neither excitement nor enlargement of the neighbouring arteries, nor pulsation in the tumour. Large veins are to be seen running towards and over its surface, it admits of being reduced by compression, and evidently swells under any exertion of the child, and presents the usual leaden colour. The cutis in no degree participates in the disease, and though the upper lid is so far involved in the growth that it cannot voluntarily be raised, yet so nicely is the swelling defined, and so strictly limited to the *subcutaneous* cellular tissue, that on elevating the lid in a way to expose the conjunctiva, which is pushed towards the globe, no vestige of the peculiar structure becomes apparent.

The seton was passed through the long diameter of the tumour, with the usual precautions, and retained for nearly three weeks, as the effects were less severe than might have been wished; it being only in the immediate neighbourhood of the seton that the diseased mass became destroyed. Immediately after withdrawing the seton, therefore, a strong solution of sulphate of copper was injected into the channel left by it; and this was followed by a degree of inflammation through the whole tumour, which I was disposed to hope would entirely obliterate its structure. In this, however, I was disappointed; for after a copious discharge, which came on about the third day, and continued more or less for a fortnight, the inflammatory intumescence subsided, and left the lateral portions of the nævus seemingly in their original state. I was hence reduced to the necessity of passing a thick skein of thread in a transverse direction, which, at the usual time, produced a desirable share of irritation and subsequent discharge from the orifices. But after a fortnight, when the seton was removed, it was found that the lower and inner division of the tumour had not not been completely de-

stroyed. It appeared advisable, consequently, to employ a more direct method of accomplishing the destruction of the remaining portion; and, for this purpose, I again availed myself of the channel caused by the seton. Instead of using, however, the sulphate of copper, as on the former occasion, I passed a cylinder of nitrate of silver, and pushed it forwards into the remainder of the diseased growth, where it was suffered to continue about a quarter of a minute. In a couple of days a considerable degree of inflammation was lighted up, not only in the part to which the caustic was applied, but also in the whole site of the original tumour, which occasioned the fear that extensive suppuration or even sloughing would occur, but by soothing applications this effect was happily averted. The parts remained for some time greatly indurated, and the induration appeared to be accompanied by a chronic form of inflammation; which conditions were relieved by occasional leeching and evaporating washes. During the latter period of the treatment, the constitution was slightly disturbed, certainly not in a severe degree, and up to the time of applying the nitrate of silver the child had suffered suprisingly little. At the expiration of three months, every trace of the disease had disappeared, and the parts had almost regained their healthy aspect, with the exception of the palpebral conjunctiva, which, from having been involved in the spread of inflammation occasioned by the caustic, had become granular and thickened, so as to require excision. The surface, indeed, where the tumour had been situated, appeared fuller than on the opposite side; the veins in the vicinity remained more dilated than natural, and the eyelid did not admit of being completely raised. The only cicatrices were those left by the apertures of the seton, which were by no means conspicuous; and, upon the whole, the disfiguration was unimportant.

At the present period, May 7th, 1830, the fulness is not strikingly perceptible; but the eyelid has not entirely regained its natural appearance, being still a little thickened and incapable of being fully elevated; yet sufficiently so for the ordinary purposes of vision. The cicatrices are still more contracted and less visible, the upper and outer being concealed by the hair, whilst those exposed to observation are not more offensive to the eye, than the scar left by the variolous pustule.

A third case is related, in which, though the seton did not completely succeed in getting rid of the nævus, so small a portion of it was ultimately left, as would admit of excision with the greatest readiness. Two plates of the face, before and after the operation, are attached to the first case, with some observations on the probable organisation of subcutaneous nævus.

Variable Period of Puberty in Females.—Mr. Robertson, surgeon to the Lying-in Hospital, Manchester, in a paper in which he combats the prevailing opinions, that the age of puberty, as indicated by the eruption of the catamenia, is not uniform, but is promoted by warm climates, retarded in cold, and usually postponed in temperate, such as that of England, to the thirteenth or fourteenth year, gives the following abstract of a table, which he formed with great precaution at the above hospital. It is taken from the accounts of pregnant married women, and contains the ages at which 326 women began to have the catamenia, and is intended to show, that puberty among English women occurs in a much more extended range of life, and is more equally distributed throughout that range, than authors have alleged:—

In their 11th year.....	6
12th ditto.....	12
13th ditto.....	31
14th ditto.....	60
15th ditto.....	72
16th ditto.....	54
17th ditto.....	30
18th ditto.....	19
19th ditto.....	18
20th ditto.....	4
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The "Asthma" of Grinders of Cutlery.—"Might not criminals who have grossly violated the laws of their country, be condemned for life to fork-grinding, as, for minor offences, they are sentenced to the tread-mill?" Such is the inquiry of Dr. Arnold Knight on closing a paper on the terrific effects of the occupation to which the grinders of Sheffield cutlery are subject. Some of the goods are ground on dry, others on wet grind-stones; and there is a third class ground both on wet and dry. Altogether the grinders amount to about two thousand five hundred; of this number, about one hundred and fifty are fork-grinders; these grind dry, and die from twenty-eight to thirty-two years of age. The razor-grinders grind both wet and dry, and they die from forty to forty-five years of age. The table-knife grinders work on wet stones, and they live to betwixt forty and fifty years of age. Towards the close of the last century, it was found that the business of grinding had so much increased, that the grinding wheels already established were insufficient. It was impossible to add

to their number, and in 1786 the steam-engine was resorted to. A great revolution accordingly took place in the circumstances of the grinder. He worked in a small low room, where there were eight or ten stones, and sometimes as many as sixteen persons employed at one time. The doors and windows were kept almost constantly closed; a great quantity of dust was evolved from so many stones, and there was scarcely any circulation of air to carry it away. The steam-engine, unlike the stream that had formerly supplied his wheel, allowed him no season of relaxation; it worked on an average eleven hours in the day, and six days in the week. The grinders began to reside more generally in the town; most of them lived near their respective wheels; their habits became less temperate, whilst the steady and industrious having now an opportunity of working as much as they pleased, died at an earlier age than even the idle and dissipated. So general has this destructive malady become of late years, that the result of some inquiries made in 1822, showed, that out of 2500 grinders, there were not 35 who had arrived at the age of fifty, and perhaps not double that number who had reached the age of forty-five; and out of more than eighty fork-grinders, exclusive of boys, it was reported that there was not a single individual thirty-six years old.

As all attempts to cure the grinders' asthma, whilst the grinder continued to follow his employment, had failed, it was natural that the parties who were interested, should endeavour to find out some means of preventing it. Accordingly ingenuity was racked to discover those means, but one invention was choked with the dust, and another stopped but half of it; a third let the dust quite through, and a fourth was speedily worn out by it, and so on with a dozen apparatuses, the whole of which not being perfectly, although nearly, effectual, created indifference on the part of the men, and were one after the other gradually laid aside, leaving the grinding-stone of the dry cutler to be recommended in despair as an engine of punishment, fit only to be set in motion by the stern arm of the law.

Dysentery.—A very useful medicine (in the fatal dysentery which occurred at the Wakefield Lunatic Asylum in 1826-29), after the tenesmus and inflammatory symptoms had been checked by leeches and mercury, and where a bloody and slimy diarrhœa still continued, was, a combination of acetate of lead with laudanum, in the proportion of one grain of the former to ten or twelve drops of the latter, every three or four hours. When the ulceration seemed to have stopped, and the purging was only the effect of a relaxed and irritable membrane, the sulphate of copper combined with opium, as recommended by Dr. Elliotson, was given with the happiest possible effect in many cases. My colleague employed hot fomentations with much advantage. I frequently used tepid stupes of alcohol and water, or diluted turpentine, but I did not think I found the benefit I had been accustomed to derive from such applications.—*Dr. Gilby's Narrative.*

Insanity.—If the views of some medical men were correct, that the likeliest way to remove insanity would be by setting up some new derivative action, we ought to have had abundance of success in restoring to reason our unfortunate patients. If a bodily change or influence could break the chain of distempered associations, it would be hardly possible to conceive a more potent remedy than dysentery, especially when aided by such an auxiliary as mercury, and that to the extent to which we pushed it. But out of 103 cases, between July 1826 and the autumn of 1829, I can only instance two, that appeared to improve in mind during the dysenteric attack, or immediately after, and both of these were recent cases, and would, in all probability, have recovered under the common discipline of the house.—*Ib.*

Obliteration of the Aorta.—The disease exhibited in the plates which accompany the contribution of Mr. Joseph Jordan, of Manchester, was found in the body of a man brought for dissection, and it is to be regretted, that the peculiarities of the circulation were not discovered until some time after the subject had been in the hands of the students; hence the details of the case are not so complete as could be desired; when, however, the discovery was made, the author collected the parts together, and had accurate drawings made of them. The aorta appeared very much contracted, if not obliterated, immediately below the point to which the ductus arteriosus is fixed, and the very great size of the three arteries which arise from its arch seemed to corroborate this opinion; but what chiefly struck the attention was, that although the aorta was filled with injection, there was considerable movement allowed, as if there was a division between the wax at this part. To examine the state of this part internally, an incision was commenced about three lines below the constriction, and carried an inch and a half downwards; the descending aorta was then turned upwards, and the aorta was found completely obliterated, about three lines below the union of the ductus arteriosus. There was a little dimple, or depression, in the centre of the

obliterated part: the wax had formed an exact impression of it, being of a conical form, the apex a little rounded off. An incision was now made into the aorta, above the obliteration; here also we observed a similar cul de sac, in the centre of which was a little dimple corresponding to the one on the other side, and at this point the partition was so thin that the light readily passed through. The remnant of the opening of the ductus arteriosus was two lines distant from this central depression. There was, in fact, a remarkable similarity in the appearance of these two depressions, viz., of the obliterated ductus arteriosus. The wax formed a more rounded bulging extremity than in the one below. There was not the smallest particle of lymph or coagulum in the cavity of the aorta, either above or below the obliteration. The coats of the aorta were of their usual thickness; there was no lymph on the exterior of the aorta, nor was there any disease or effect of inflammation discernible about its obliterated part or in the neighbourhood. The next object of inquiry was, in what manner the circulation was carried on under these circumstances.

It was evident that the chief collateral channels by which the blood had passed from the aorta, above the obliteration, to that vessel below it, were three,—viz. the intercostalis superior, and internal mammary of the subclavian, and the infra-scapular of the axillary arteries on each side. The blood was transmitted by these to the eight superior intercostal arteries of the aorta descendens; but chiefly into the three superior from the intercostal branch of the subclavian, and the three inferior of the eight from the internal mammary and infra-scapular. The two intervening intercostals, however, were of considerable size. The pericardium was found greatly distended, and, on being slit open, it proved to be by blood, partly fluid, partly coagulated, effused into its cavity. When removed it was supposed to equal about half a pound in weight. The first circumstance which struck the examiners, was, the aorta increased to twice its usual size, its surface tense, shining, and of a bluish colour, through its whole course from the heart to its exit out of the pericardium. No orifice could be found for a long time by which the blood had escaped into the pericardium; at length a small one was found at the right and posterior side. This was so small as only to allow a common probe to enter, it had the appearance of a small fissure or crack, there was no apparent ulceration or inflammation near it. An incision was now made along the fore part of the aorta from the heart to its exit out of the pericardium; this, instead of laying open the aorta, exposed a cavity containing a quantity of firm coagulated blood, of a brownish-red colour, adhering rather firmly to the parietes. On detaching and removing this, the aorta was seen to pass through the centre of the cavity, and of its usual size, but on more accurate inspection, this proved to be the aorta deprived of its pericardial covering, consisting merely of an internal and fibrous coat; about the middle of its course an aperture was observable, which would have admitted a horse-bean.—*Abridged from Art. X.*

QUESTIONS PROPOSED TO A CANDIDATE FOR THE DEGREE OF DOCTOR IN MEDICINE AT EDINBURGH.

To the Editor of THE LANCET.

SIR,—About a year and a half ago (*No.* 276, p. 340), you published an examination for the Edinburgh degree, which was given some years since. The following examinations, which I passed on June 25th last, it may be interesting to some of your readers to compare with the examination then given, and instructive to others who have themselves to go through "the impertinence of academical forms," as Professor Ferguson wittily expressed himself.

By Dr. MONRO.

What is the simplest division of the structure of the human body?

What are the several tissues of the human body?

What is the succession of tissues from the surface to the osseous parts, upon an extremity for example?

To what class of tissues does the periosteum belong?

What are its uses?

Of what does bone consist?

What is the chemical constitution of bones?

What are the proportions of the earthy, saline, and cartilaginous or gelatinous parts?

What is the appearance of bones when exposed to combustion?

What is the residuum after incineration?

What are the diseases which consist in deficiency and excess of the earthy matter?

What appearances are presented in mollities ossium?

What parts of bones are first affected in rickets?

What bones are affected in rickets?

What are the symptoms of rickets?

What are the curvatures of the spine?

By what circumstances would you know their existence?

What form does the sternum assume in anterior and posterior curvature?

What is the appearance of the shoulders in lateral curvature?

What is the direction of the spine in lateral curvature?

From what different morbid conditions of the vertebræ and their appendages do curvatures arise?

What disordered actions arise from curvatures?

How are curvatures treated?

Upon what principle are weights carried upon the head used?

Enumerate the extensors of the spine which are called into action to support the weight of the head and trunk.

What other means are used?

Is not reclining upon a sofa as efficacious as the double-inclined plane?

What other means?

In what soft parts is osseous matter most frequently deposited?

In which side of the heart?

How is the circulation of the blood, from auricle to ventricle, affected by this state of the valves?

To what changes of the heart itself does it give rise?

What is the state of the pulse?

What part of the aorta is most subject to ossific deposits?

In what coats of the artery does it take place?

Are the veins subject to ossification?

By Dr. Duncan.

What are the acidifying principles?

What substances in pharmacy are acidified by hydrogen?

How is hydro-chloric acid obtained?

When the sulphuric acid is added to the chloride of sodium, what changes take place?

What change would take place if an hydrous sulphuric acid were used?

How is hydro-chloric acid obtained, according to the London process?

When muriatic acid gas passes over, and comes into contact with water, what happens?

What is the composition of muriatic acid in atomic proportions, and in weight?

How is chlorine obtained?

How is it obtained by the more difficult process?

What action takes place?

How is hydriodate of potass prepared?

How is hydriodic acid obtained?

What are the relative affinities of iodine and sulphur for hydrogen?

In which is iodine most soluble, alcohol or water?

In what manner does iodine combine with water?

What decomposition takes place when a stream of hydro-thionic acid is passed into a diffused solution of iodine in water?

How are the iodate and hydriodate of potass formed?

How are they separated from each other?

In what proportion is iodine soluble in alcohol?

What quantity of iodine is contained in ℥j of the tincture of M. Coindet?

What medical plants are contained in the family of the cucurbitaceæ?

To what Linnæan class do they belong?

Whence is the cucumis colocynthidis procured?

Where besides Asiatic Turkey?

From what part of the gourd is the extract procured?

Have you ever seen the gourd? Where did you obtain it?

Is the simple extract still retained in our pharmacopœias?

What is its colour?

What is the Latin name of the part of the momordica elaterium which is used in pharmacy?

What is the English name?

What is the meaning of the very appropriate Greek word, elaterium, or its Latin derivative, elatin?

Have you ever observed what happens when a gardener tells you to squeeze the ripe fruit?

In what part of the *pepones* is the active principle contained?

How is the elaterium separated?

How is all fecula procured?

Is starch soluble in hot or cold water?

The French have a different mode of procuring fecula; what is it?

How is it prepared by the laundress?

Who first gave an account of the active principle of elaterium?

Do you remember what followed that communication?

By Dr. Alison.

Where is paralysis situated when effusion takes place in the left hemisphere of the brain?

Does the paralysis take place in the left side, when the effusion occurs on the right side?

What is the origin of the right and left facial nerves?

If the one facial nerve arises from the base of the corpus olivare, the other from its upper surface, is the effect of effusions on the right and left sides always the same?

What are the three stages of *ramollissement*, and the changes of colour which take place in them?

At what ages do they occur?

Is ramollissement preceded by acute or chronic inflammation?

Whether does ramollissement occur most, in old or young persons?

What pathognomic symptom indicates the existence of ramollissement?

Where are effusions found in apoplexy?

In what form are they deposited?

When an individual has survived effusion three years, is the effusion found in the state of a bloody coagulum?

To what other morbid conditions is the brain subject?

Is not the brain subject to certain growths which are observed in the lungs?

In what part of the brain are tubercles generally found?

What are the morbid appearances in hydrocephalus?

Are inflammatory appearances observed in hydrocephalus?

What are the symptoms in the first stage of hydrocephalus?

What is the state of the stomach in hydrocephalus?

What is the treatment of hydrocephalus in the first stage?

To what extent would you bleed a child of five years of age, in hydrocephalus?

What dose of calomel and scammony would you administer?

By Dr. Home.

What are the symptoms of hysteria?

Which of the sexes does it affect chiefly?

Does it not occur in males?

What is the diagnosis of epilepsy and hysteria?

What symptom marks particularly the difference between the two?

What is the cause of the aura?

What state follows the paroxysm?

How do you distinguish true from simulated epilepsy?

Have you seen simulated epilepsy, and where?

By what single symptom peculiar to one organ may true epilepsy be always distinguished from the simulated?

What are the exciting causes of epilepsy?

In what diseases does epilepsy occur?

When it occurs in exanthematous diseases, is it a favourable indication?

What is the treatment of epilepsy during the paroxysm?

What! Would you bleed a patient during a paroxysm of epilepsy?

I repeat once more, what would you do in a paroxysm of epilepsy?

What! Would you think of administering your antispasmodics, &c., during a paroxysm of epilepsy?*

* This was a serio-comic winding-up. The answer expected is obvious: "In a paroxysm of epilepsy, I think, then, *Domine*," concluded the professor, "the proper course is to do nothing at all, but wait till it is over."

The examination commenced about ten minutes after three P.M., and continued till five o'clock. It is now almost always of two hours' duration. Dr. Hope was in London; Dr. Graham was absent for the day.

Second Examination, by Dr. Graham. *Two Cases.*

What are the morbid changes in carcinoma of the stomach?

What termination takes place occasionally after ulceration of the stomach?

What species of inflammation does the passage of the aliment into the cavity of the abdomen excite?

Third Examination, by Dr. Graham, *on the Thesis* (De Surditate).

Are there no other morbid conditions of structure which cause deafness, than those which you have enumerated?

How does cold set in producing deafness?

By affecting what different parts does cold produce deafness?

Upon what principle do you prefer the application of the tartar-emetic ointment to cantharides in deafness?

Here the examinations terminated. I made these notes immediately after each was concluded, as correctly as memory would enable me.

John Fosbroke, M.D.

Cheltenham, Aug. 1st, 1830.

CASE OF

HERNIA OF THE FORAMEN OVALE,

With the appearances on Dissection.

By Josh. A. Smith, Esq., Member of the Royal College of Surgeons, London.

M. E. an aged unmarried woman, of spare habit, came under my notice on the 12th of June. She had been attended during the previous week by another practitioner who had deserted the case, having ineffectually employed purgatives to remove pain and constipation which had commenced ten days before. According to her statement, she had not had a single evacuation from her bowels during that period. I found her complaining of pain, somewhat, but not materially, increased on pressure, her pulse quickened but firm, her tongue tolerably clean, and her mind cheerful, having suffered, as she said, attacks of a similar description repeatedly during the last twenty years. She retained her relish for food, yet invariably rejected both food and medicine a few minutes after it had been swallowed, and during the ten days she remained under

my care this symptom remained unmitigated.

The most careful and minute examination which my friends and myself could make, detected no tumour nor protrusion in any of the ordinary situations of hernia. The pain of which she complained, and which subsided a few days before her death, was not limited to any precise situation. She had no hiccough, but the matters ejected from her stomach assumed at an early period a decidedly stercoraceous character. She rapidly became emaciated; her pulse, however, maintained its firmness almost to the last, and her intellect remained unimpaired. And with little variation in her symptoms, twenty-one days since the last fœcal evacuation, she died.

Inspectio Cadaveris.

My friend Mr. W. N. S. Cooper, who had seen the case, attended the inspection. On reflecting the abdominal integuments, a curious appearance arrested our attention. The small intestines, pale and immoderately distended, were partially covered by the omentum, in which not a particle of adeps seemed discoverable, nor even, at first glance, in its duplicature, the arch of the colon. We found it, and certainly in its natural situation, but so contracted as to resemble more accurately the empty femoral artery, than aught besides with which we could compare it; positively it was no wider; its sacculi were obliterated, its coats were pale, thickened, and opaque. There were no adhesions, nor traces of any acute inflammatory action; the lining membrane of the stomach was reddened and thickened in patches, and this condition prevailed slightly along the course of the jejunum and ileum. Tracing this latter portion of the intestine downward, we found it distinctly strangulated in the opening for the obturator vessels and nerve of the left side. Dissecting externally for the sac, the obturator artery and vein were seen running on its inner side and behind the hernia; the os pubis formed its anterior boundary, and its outer and inferior surfaces were closely embraced by the thyroideal ligament. We cut away the head of the pectineus and adductor brevis to reach the sac; it was firm and closely connected by strong adhesions with the surrounding parts. We found a little fluid, and a knuckle of completely sphacelated intestine.

Remarks.

What are the signs by which this species of hernia may be accurately detected during life, and what operation may be safely proposed for its relief? In commenting on the first part of this interesting question, I am afraid we are compelled to own there is no symptom characteristic of thyroideal hernia; as far as the evidence of a single case is valuable, it would seem that local pain is by no means a necessary concomitant; and that in the absence of external tumour, as in the ordinary forms of hernia, the same train of symptoms tolerably characteristic in other cases, is not to be expected here; that while the most complete prostration supervenes on the more usual varieties at an early period, life being soon extinguished, hernia equally dangerous and fatal may occur in the absence of many of its most prominent symptoms. It will remain for future inquirers to note whether the constant rejection of the contents of the stomach is pathognomic of thyroideal hernia. The records of surgery are not very definite on this subject, perhaps we should not be hazarding too much in saying that many fatal cases of supposed intro-susception have been in reality undiscovered hernia. Anatomical writers commonly agree in stating that the contents of the intestine do not assume the fœcal odour and appearance until after they have passed the ileo-colic valve; this appears however to be occasionally contradicted by the progress of disease, and the observation of the morbid anatomist, as in this patient, in whom the ileum had been strangulated nearly three weeks; the vomited matters had, during the latter half of that period, an appearance and (more than this) an odour too striking to be mistaken.

In reference to the operation,—premising that there exists an undoubted hernia—the vicinity of the hernial sac to the femoral sheath, its depth beneath a mass of muscle, the varieties in the origin and course of the obturator and epigastric arteries, and the difficulty of securing these vessels if accidentally divided—these form to the mind of a young surgeon insuperable obstacles to the performance of any operation. At all events, such cases prove the value of post-mortem inspection, in connecting by a succession of histories the essential and characteristic peculiarities of disease, and in enabling us thereby, with more confidence and certainty, to distinguish their varieties.

95, London Road, Manchester.

PREGNANCY WITHOUT PREVIOUS MENSTRUATION.

It has commonly been supposed, that women who never menstruate are always barren. Velpeau (Art des Accouchemens, 1829) mentions a case at the hospital of Tours, in which a woman, who had never menstruated, became the mother of a fine child. In general, the absence of the menses depends on some malformation of the uterus, or the parts connected with it, and therefore is in most cases the sign of sterility.—*Med. Jour.*

ABERDEEN OPHTHALMIC INSTITUTION.

CASE OF DISLOCATION OF THE CRYSTALLINE LENS, &c.

By JOHN CADENHEAD, Esq., *Surgeon to the Institution.*

R. SUTHERLAND, ætat. 9, of a very sickly appearance, and strongly marked by scrofula, says that about four weeks ago a boy thrust his finger into his left eye, and from that time he has completely lost the use of it; that no inflammatory symptoms followed the injury that same night; he felt after, and continues to feel, a severe pain in the eye itself, and over the brow, extending often towards the back of the head of the same side, and going off before morning. The pain is of such severity as to deprive him of sleep. On examining the eye, a slight blush of conjunctival inflammation was to be seen; the pupil was found fixed, contracted, and somewhat of an oval shape, resembling very much the contracted pupil of a cat. The iris had lost its brilliancy, and from a light blue, its natural colour, it had become of a dirty muddy appearance, more particularly at its pupillary margin. It was convex, and seemed as if pressed forward into the anterior chamber of the aqueous humour, but not exactly in contact with the cornea. The pupil did not present the clear jet black colour of a healthy eye, but of a bright shining yellow colour, in fact, so evident, as to be seen at the distance of several feet, and resembling the colour of a piece of gold in the bottom of a wine-glass when full of water, and had the metallic appearance in different shades, as the gold has when passed before the eyes in the glass. From the convex state of the iris, the yellow colour appeared as if it arose from some tumour at the posterior part of the eye, and a vessel was thought to be seen arising from the lower part, and proceeding upwards. The eye itself was not increased in size, nor was there any circle or zone of vessels surrounding the cornea, as commonly attending iritis, nor was the sensibility of the eye increased, as the boy could look at objects in a pretty strong light with the right eye, without causing any uneasiness in the left. The only thing he complained of, was the pain at night, depriving him of rest, and, by that means, undermining his general health, and of course preventing him from attending his daily work, which was assisting in rolling leaf tobacco. On first observing the eye, I was clearly of opinion that it was a case of fungus hæmatodes in its earliest stage; that it had existed for some time, and that the little fellow's attention had only been directed to it after receiving the slight injury; and being fully aware of the difference of opinion regarding the propriety of extirpation of the eye, I showed the case to several medical gentlemen here, who concurred with me in thinking, that the case showed all the symptoms of that fatal disease. Considering that from its recent state it must be a favourable case for putting in force any course of practice, I forwarded an outline of the case, along with a rough sketch of the eye, for the opinion of Mr. Guthrie, of the Royal Westminster Hospital; a gentleman whose talents, extensive experience, and intimate knowledge of diseases of the eye, must at all times entitle his opinion to be held in the greatest estimation. At the same time I ordered a purgative to clear out the bowels, and a dose of calomel and opium to be taken at bed-time, for the purpose of procuring sleep, and putting the system directly under the influence of mercury, being fully aware that if any or all of the symptoms arose from inflammation of the internal coats, it would be most likely to yield to the mercurial action. By return of post, I received a polite letter from Mr. Guthrie, stating, that he thought it would turn out to be a case of dislocation of the lens accompanied with iritis, in place of being a case of fungus hæmatodes; and recommending local bleeding, if the inflammation returned, calomel, &c. By this time, however, the boy's mouth was sore, by the repeated doses of the calomel and opium; the pain was nearly gone in his head at night, and from his obtaining sleep, his general health was improved. I kept up the mercurial action until all the symptoms were gone, except the yellow shining colour of the pupil, and this also gradually went away in the course of a few weeks.

The patient has now been quite well for some months, the iris has nearly regained its natural colour, but remains convex, contracted, and projecting into the anterior chamber of the aqueous humour. The eye is of its natural size, and the crystalline lens can now be distinctly seen, of an opaque colour, pressing forwards into the pupil; and the eye on the whole has now the appearance as affected with cataract, proceeding from any other cause.

On looking over the above case, it may appear of little interest, but, on considering some of the symptoms and appearance of the eye, when the boy applied first to the institution, I am rather at a loss to account for them. That most of the symptoms of this case arose from iritis, will not admit of a doubt, and that the inflammation of the iris was caused by the dislocation and pressing forward of the lens on the iris, as stated by Mr. Guthrie, is also evident; but how was

the yellow colour of the pupil produced? it was not of that faint yellow appearance which I have often seen attending the commencement of amaurosis, but a colour of a shiny nature, as if arising from reflection, and easily seen at a considerable distance from the boy. Now, on looking at the symptoms as a whole, the patient had certainly most, if not all, the symptoms of that fatal disease fungus hæmatodes, in its earliest stage; the boy's age, sickly appearance, nocturnal pain of the head, and above all, the yellow colour of the pupil, are all symptoms attending the above disease as described by Wardrop, Lawrence, &c. It is also true, the symptoms are the same in an attack of simple iritis, but still the yellow appearance of the pupil remains to be accounted for. I am not acquainted with any disease, nor do I know any author who mentions that state of the pupil, unless in that of fungus hæmatodes. In the case mentioned by Mr. Travers, as resembling fungus hæmatodes, the eye was enlarged, but, in the present case, no such alteration took place; cases are recorded, where, after repeated emetics have been given, the crystalline lens of each eye became of a *red* colour for some time, and gradually wore off without producing any derangement of the organ. The eye has become of a yellow colour in cases of icterus, from the absorption of the bile, but in this case, no symptoms of jaundice were present, and the colour of the other pupil remained perfectly natural. I am inclined to think, that the yellow appearance may have been produced either by inflammation and effusion of lymph in the posterior capsule of the lens, or that an effusion of the thinner parts of the blood may have taken place from the rupture of the central artery of the vitreous humour.

I have only to say, that to myself the case was perfectly new, and am partly inclined to think, that from the distinct nature of the symptoms, had it fallen into the hands of some of those who are strong advocates for extirpation of the eye in the early stages of fungus hæmatodes, it might have been extirpated, and afterwards held out as a successful case of operation in that fatal disease; and by such statement entailing, in doubtful cases, an operation on patients, which, according to the extensive experience of Mr. Lawrence, is useless, because if it be a case of fungus hæmatodes, it will return and carry off the patient, and, if it be not that disease, is performing a painful operation when not required.

Aberdeen, July 21st, 1830.

THE LANCET.

London, Saturday, August 7, 1830.

In the "prospectus" published by the "Society of General Practitioners," it was stated that it was the object of the promoters of the Society to form an union of "General Practitioners," for the protection of their particular interests, and "to effect such an alteration of existing laws and customs as should promote the prosperity and respectability of the general body of practitioners."

The Society has now issued its "rules and regulations," from which it may at once be perceived that, with the exception of the "Benevolent Fund," it has already sunk from its pretended high character as a REFORMATION society, and now bears only the same features as other medical societies. In a word, it appears from the Rules and Regulations, that it is to become a common Debating Society,—with the appendage of a reading room,—and also a library, museum, and benevolent fund, if the means can be procured for forming them. The President, Vice-Presidents, and Committee, are to be chosen in the usual manner, and, so far as we can discover, all the affairs of the society are to be conducted on the same plan as that of the medical societies already established; —with the exception that, agreeably to the second regulation, the MEMBERS are to be exclusively "general practitioners in medicine and surgery." In the very face, however, of this regulation, several of the existing committee *are not surgeons*. The committee is not yet complete, consisting of only twenty-one members; the rules prescribe that the number must be twenty-five. On the subject of the "benevolent fund" it is stated, that "A fund is to be formed, by contributions and donations from members of the society and other persons, and to be under the management and control of the committee for the time

being." As it would be quite absurd to suppose that a fund sufficiently large to effect any good purpose can ever be created upon such a principle as is here contemplated, it may be altogether discarded in considering the question of the society's success and utility. Is there not already a medical benevolent fund, supported,—but *how* supported?—by some of the most respectable and opulent members of the profession? Has not that institution always been conducted upon the "donation" plan? And what relief has it afforded to the distressed members of the profession? Comparatively none. This benevolent fund, therefore, if it were to be formed, would not differ essentially from the one already in existence. We fear it must be confessed, that those persons who have suffered the least from the casualties of poverty and disease, are not the most ready to feel for, or to relieve, the misfortunes and wretchedness of their professional brethren. A fund, therefore, for benevolent distribution, must be arbitrarily collected; at least the inducement to contribute must, by some provoking contingency, be made greater than the desire to withhold, aid. If the Society, for example, were like what the Royal Society once was, a person might be induced, for the honour of belonging to it, to pay two, three, or four pounds annually, and a considerable portion of this sum might be appropriated to a benevolent fund. It appears that the entrance fee to the Society of "Generals" is one guinea, and the annual payment is to be two guineas, but no portion of these sums is to go towards the benevolent fund, which is to be entirely a distinct affair, although under the management of the committee. How the money thus collected is to be appropriated, no mention is made in the regulations; that is, beyond providing for the payment of the ordinary expenses incurred by such institutions. It does not appear that a farthing is to be devoted for "protecting individual interests," or towards "effecting such an alteration in the existing laws and customs as shall promote the well-being of the profession." In a word, the only points of the "prospectus" which were entitled to one moment's serious consideration, are entirely abandoned, or lost sight of in the "rules and regulations." It is our earnest recommendation, therefore, to the Committee, to give up the project, and they had better do this at once than incur a perplexing and expensive failure. The members of the Committee, we know, are really desirous of improving the condition of the profession, but they have been unfortunate in the means they have devised for carrying their wishes into effect. If they were not completely insensible to the tendency of passing events, they would have perceived from the conduct of their enemies,—the conduct of those who are anxious to *keep down* the great body of English surgeons,—that their "Society" must depress, rather than uphold those interests which the Committee are anxious to promote. The Society is lauded by those despicable medical writers who, before this journal appeared, scarcely ever dipped their pens in gall, unless to libel, or hold up to ridicule, the attainments and practice of English surgeons. Does not THIS speak sufficiently for what the *doctors* suppose the "Society" will achieve for the respectability of those who are *not* doctors,—*for* the respectability of those who have *not* medical degrees? The fang of the viper is not less characteristic of the venom of the reptile, than is this *approval* indicative of the worthlessness of the society, and also of the hypocrisy and baseness of certain knaves of the medical press.

We have freely expressed our opinion of the character and tendency of the Association, and sincerely hope that this is the last time we may have cause to notice it. By the pecuniary sacrifices of a few individuals, it may continue for a time; but, inasmuch as the general sense of the profession is decidedly against it, the proceedings of the So-

ciety, even during its short existence, must be confined within an exceedingly limited circle.

LONDON UNIVERSITY.

Our readers are aware that a Committee was lately appointed by the Proprietors to inquire into the causes and the extent of the differences which, for some time past, have existed between the Council, the Warden, and certain of the Professors of this Institution. The Council and Warden are not, we believe, very favourably disposed towards two or three of the refractory Professors, and so obnoxious is one of them, Mr. Granville Sharp Pattison, to the students, that seventeen of the best pupils, successful competitors for the prizes, have presented a memorial to the Committee, couched in very strong terms, calling most urgently for the dismissal of that gentleman. It is due to Professor Pattison and the interests of the Institution, that he should be made acquainted with this circumstance. Neither is it right to withhold from that gentleman the fact, that a small pamphlet, entitled, "Correspondence between Mr. Granville Sharp Pattison and Dr. N. Chapman," has, of late, been secretly handed about to his prejudice. The pamphlet is dated, Philadelphia, November 5th, 1820. Mr. Pattison declares in his first note, addressed to Dr. Chapman, that "He is determined that no person shall, with impunity, couple his name with a mean or dishonourable action." We therefore are of opinion, that we render him essential service, by laying before the great body of the Proprietors, one of the secret engines employed by his enemies, thus affording him an ample opportunity for publicly refuting most injurious statements, which, it is feared, have been but too industriously circulated in private, to the prejudice of his public character. An unfounded calumny is only injurious or dangerous when it floats upon the tongue of the whisperer.

We take this opportunity of reminding the Council, and the Committee, that October is at hand, and that it is high time the dissensions were at an end. The stability of the Institution demands decisive, and not *half* measures.

CORRESPONDENCE
BETWEEN
MR. GRANVILLE SHARP PATTISON,
AND
DR. N. CHAPMAN.*

It seems to me proper, on several accounts that the ensuing correspondence should be laid before the public; and, in order to render the subject to which it relates more intelligible, I shall add a few remarks.

Baltimore, 12th October, 1820.

Sir,—When the slightest insinuation is thrown out against the character of a man of honour, it becomes his painful duty to seek that redress which as a gentleman he is entitled to demand, and no one, if he has injured another, can refuse. Since my arrival in this country, much has been done by certain individuals to hurt my reputation; and I have frequently heard, but in a manner which prevented me seeking an explanation, that you had used great liberties in speaking of my character. As I am determined that no person shall, with impunity, couple my name either with a mean or dishonourable action, my present object in addressing you is, to ascertain whether you have asserted, that you believe me to be the author of an anonymous letter said to have been received by you last winter, and at present handing about in Philadelphia.

That I may immediately know how to proceed in this affair, I have to request that you will answer this letter, (which, to prevent any mistake, shall be delivered into your hands by Dr. Eberle,) by return of post. I have the honour to be, Sir,

Your obedient servant,

Granville Sharp Pattison.

For Dr. Chapman, &c., &c., &c.

* To have added certificates to the ensuing statement, would have rendered the publication inconveniently long. But with a view of guarding against inaccuracies, I submitted the manuscript to each of the gentlemen whose names are introduced, and am authorised to say, that the averments in every instance are correct and true.

Baltimore, 17th Oct., 1820.

Sir,—Mr. Pattison called on me last week for the purpose of getting me to accompany him to Philadelphia as his friend, to require of you an explanation of a report injurious to his character, which he had reason to believe had emanated from you. The exalted character which I have ever entertained of you for honour and justice, induced me to advise him to write you the letter delivered into your own hands by Dr. Eberle on Friday evening, to which he has not yet received any answer. Unwilling that this affair should be brought to a disagreeable conclusion, I have again prevailed on Mr. Pattison to delay his departure to Philadelphia, until a reply to this is due, when I hope to receive from you such an answer as will enable me to make an arrangement at once honourable and satisfactory to the parties concerned. I have the honour to be, Sir,

Your obedient servant,

Dr. N. Chapman. C. Macaulay.

P.S. That this should come safe into your hands, I have inclosed it to Dr. Eberle, with the request that he should deliver it without delay. C. M.

Sir,—In answer to your letter of the 17th inst., I have only to observe, that from various facts which have come to my knowledge, of the character and conduct of Mr. Pattison, as well in relation to the causes which compelled him to leave Scotland, as to events which have subsequently happened, I have determined to hold no communication with him, by correspondence or otherwise.

If any further proceedings on the part of Mr. P. should render it necessary, I shall take an opportunity, through the medium of the press, of assigning the reasons which have led me to this decision. I am, Sir, very respectfully,

Your obedient servant,

To Dr. C. Macauley, &c. N. Chapman.

Philadelphia, Oct. 19th, 1820.

In the course of the last winter, a series of anonymous letters were addressed to Dr. Physick and myself, of a very offensive nature. Circumstances led us to suspect, that if not written by Mr. Pattison, he was at least privy to their production. They were marked by *Scotticisms*, had *several phrases peculiar* to the *medical schools of Scotland*, and aimed at the object, which we well understood was steadily pursued by himself and friends, of forcing Dr. Gibson and Dr. Horner out of their positions in our University, to make way for his own admission. That these letters, however, were circulated, or indeed shown to any person, except to Dr. Dewees and Dr. Horner, I do deny.* The latter gentleman tells me, of which I was not aware, that he did speak of them unreservedly, as the probable production of Mr. Pattison, *which imputation he caused to be communicated to him, through the medium of his friends, with a message, that he was prepared to render him any redress which he might exact.*

In directing his interrogatory to this point alone, Mr. Pattison obviously hoped to evade a subject, on which he knew I had spoken often, and without disguise. To repel a charge preferred against Dr. Physick and myself, and which we learnt was most industriously propagated in Baltimore especially, of having brought him to this country, and afterwards, very wantonly persecuting him, I had on several occasions distinctly declared such allegations to be utterly false,—that, on the contrary, he was driven hither by an incensed public, in consequence of a most odious deed, hereafter to be explained,—and that our reception and treatment of him were kind in the extreme, till he forfeited every claim to our notice, by the development of his character, and the particular reprehensibility of his conduct towards us.

The history of his visit to the United States may be told in a few words. Early in November, 1818, Mr. John Pattison, the brother, announces to him the vacancy in our school, by the death of Dr. Dorsey, with his advice to become a candidate for the chair. The intelligence is received late in December; he determines to do so, and letters of recommendation of this date, are procured and transmitted to Dr. Physick and myself, which were received on the 12th of April, and here commenced our knowledge of Mr. Granville Pattison.

He did not contemplate, at first, coming to this country. In March, however, Dr. Ure, of Glasgow, sues out and obtains a divorce from his wife, on the ground of an *adulterous intercourse* with Mr. Pattison. As must happen in every community which retains any sense of virtue, or the positive obligations of religion, a clamour is raised against him, which, finding he could not resist, he repairs to London, lingers there a few weeks, and then embarks for this country.

What is the degree of Mr. Pattison's guilt in this transaction, I shall not take on myself to determine. This is now a matter between himself and his God. Documents, however, which I have seen, prove that he was at the time the colleague of Dr. Ure, in the Andersonian Institution—that he habitually visited in his family, one of the most respectable in Glasgow, and that the transgression did not proceed from the temporary

* One letter lately to Dr. R. M. Pattison.

ascendancy of passion over moral restraint, but was lengthened out and aggravated by repeated assignations, &c. &c.

As stated, such I sincerely believe to be the cause of Mr. Pattison's emigration. But this is denied, and he complains of being allured hither by the promises of Dr. Physick and myself.

Where is the evidence of the fact? It is said to be contained in a letter from Dr. Dewees, which I have never been able to see. But I learn from the author of it, that to the best of his recollection, it merely acquaints Mr. Pattison, that it is the opinion of two gentlemen, not designated by name, who are well qualified to judge, that whatever may be the weight of his credentials, he cannot possibly succeed in his application, without being personally present, and, therefore, advises his coming.

It is not pretended that the letter was written with my privity or consent. The fact is, I knew nothing even of its existence till seven or eight months subsequent to its date. Even allowing the reverse, it is still susceptible of proof, that it could not and did not supply the motive of Mr. Pattison's removal. The date of the letter cannot be exactly ascertained. But I am assured by Dr. Dewees, that it must have been written very late in April, and therefore, in all probability, it was forwarded by the New York packet of the 10th of May, the stated period for the sailing of these vessels, and I have one from Mr. Stirling of London, of the 27th of the same month, in which the immediate embarkation of Mr. Pattison for the United States is mentioned.

By the preceding statement, a train of reflections is suggested. Why, it will be asked, did not Mr. John Pattison call on Dr. Physick and myself, to ascertain how far such a communication was authorized? What was the nature and degree of support we were prepared to afford, as well as the prospect of success in the proposed application for the professorship? Can it be presumed for a moment, that any man situated as Mr. Granville Pattison is described to have been at the time, triumphant as a teacher, prosperous as a practitioner, devoted to his country, surrounded by family and friends, would break such ties, and surrender up such certainties, for an attainment so indefinite and precarious?

Had, however, Dr. Physick and myself been inclined to promote Mr. Pattison's election, we could not have done it. Two of the trustees of our College, about the 1st of May, waited on Dr. Physick, who was still confined to his room by illness, to inform him that they had resolved to make an appointment, and that it was the opinion of a large majority of the Board, that the interest of the school imperatively required he should be transferred to the anatomical chair, in consequence of which strong representation he acquiesced, though very reluctantly, in the measure.

All the testimonials, however, in favour of Mr. Pattison, in our possession, had been laid before the trustees—he was caused regularly to be nominated—and, in every respect, entire justice was done to his pretensions.

Before his arrival the election was over, of which he is apprised by Professor Hare, on his landing at New York—to whom, instead of expressing disappointment, or uttering a complaint, he remarks, that the *main motive of his visit to this country was to see his brother and family, and that he should speedily return.* Exactly the same language he holds to Dr. Physick, Dr. Dewees, Dr. Horner, and myself, on his reaching this city. Not a whisper of reproach escapes him, even at the subsequent period, when he found Dr. Physick and myself strenuously supporting Dr. Gibson in opposition to him for the chair of surgery. On the contrary, he says to Dr. Physick, *You have held out to me no promises, and therefore I have no claims on you.* On this point I speak positively, and with the *express authority* of Dr. Physick.

He further declares to us and many others, that he is very indifferent as to the event, meaning to go to London, where he has the most brilliant prospects of professional success, and solicits Dr. Horner to accompany him on an excursion to Canada, whence he is to sail for England.

The first intimation I had of his design to remain in this country, was given in a conference with me, on the expediency of his accepting an offer of 1500 dollars from the college of Lexington to teach anatomy. The offer is declined, not however till the appointment is formally made, and extracts from the whole of his letters of introduction are published in the western papers.

Now commences the distinguished kindness, or, as he is pleased to term it, the persecution of Dr. Physick and myself. The masquerade dress, which hitherto had enveloped him, he throws off—approaches us in proper person, avows his pecuniary distresses—unfolds his views—and solicits our patronage.

As the result of our best judgment, we discourage him from settling in Philadelphia—urge his return to London—or if determined to continue in America, to select Baltimore as a residence, having an opening both in the medical School, and in the practice of Surgery, created by the removal of Dr. Gibson, *and letters of introduction are solicited by me, from this gentleman, for the purpose.* But he decides otherwise—establishes himself in this city—and hence-

forward is introduced into business by Dr. Physick—consulted in some difficult cases—is invited by him to operate before an assemblage of medical men to display his skill—has a letter backed by our joint recommendation to the Trustees, to allow him accommodation for his Museum—we endeavour to get him the privilege of lecturing in some apartment of the University,—and attend his introductory lecture, to manifest unequivocally to the students our friendly disposition for the success of his course.

Yet, all this did not satisfy him, and in proportion as we conceded, was the increase of his demands. To be appointed the adjunct of Dr. Physick, or to have physiology detached from me, and united with morbid and minute anatomy, as a separate professorship, was the *sine qua non*, the last of his very reasonable demands.

It was in vain we urged the inadmissibility of such arrangements—that they were improper in themselves—that the Trustees would never appoint so recent a foreigner to any place—that he must become a citizen—ratify his claims by longer residence and more intimate acquaintance—keep quiet—entangle himself with no medical party, engage in no dispute, and we would guarantee his ultimate success.

After this, we had little intercourse with him. He seemed to be soured, gradually alienated himself from us, began a system of hostility to the school and personal detraction of the professors, and was as insolent in his general demeanor, as he had previously been humble, laudatory, and submissive.

At this period, the letter of Dr. Dewees and the attendant accusations came forth, not manfully presented as a just grievance, calling for explanation and redress, but in vague and untangible rumours. Neither the one nor the other was previously signified to Dr. Physick or myself, or even the slightest dissatisfaction expressed.

He had spoken of us at all times as his kindest benefactors, and so late as the evening on which he delivered his introductory lecture, the first of November, he took me by the hand, in the presence of Dr. Dewees, and several other gentlemen, and thanked me, and through me Dr. Physick, for our liberal and magnanimous conduct towards him.

In a short time his character was pretty well evolved, and we could not forbear to inquire into the validity of the grounds on which our early prepossessions rested. It appeared, in the first place, that the account which he had given us of the affair with Mrs. Ure, was so much distorted, as hardly to retain any of the facts. As this, however, is a matter of leading importance, I shall be more precise.

Mr. Pattison, on hearing that the story of his amour had reached Philadelphia, convened Dr. Physick, Dr. Dewees, and myself, for the purpose of reading to us an elaborate printed pamphlet, containing his defence, on the conclusion of which he requested, that if convinced of his innocence we would give him a certificate to that effect. Though probably none of us doubted it—such was our confidence in the veracity of his statements, supported by the respectability of his recommendations—we declined doing it, and advised his submitting the case to Mr. Binney or some other eminent legal character, for an opinion, as calculated to produce a much stronger effect on the public mind.

Not long afterwards he tells me, with much apparent satisfaction, that Mr. Binney had decided in his favour, and requested me to communicate it to Dr. Physick, which I accordingly did. Being widely diffused, this report served very much to repress the force of the accusation, and was only contradicted a month or two ago, by a declaration from Mr. Binney to me, that he had never been at all consulted in the case. He had previously told Dr. Physick, that Mr. Chauncey had delivered a similar opinion. Whether it be true, I am unable to ascertain. Mr. Chauncey having recently been professionally consulted by Mr. Pattison, considerations of delicacy forbid any application to him on the subject.

Nor is this the only deception which he practised. A letter declared by him to be from Dr. Ure to his wife, was read to us, to demonstrate the iniquity of their character, of a description so detestably obscene, that I dare not cite even a single passage, or allude more distinctly to its contents. This letter, I have since understood, was not exhibited on the trial, makes no part of the record, and the presumption is strong, and more particularly as it proves to be *anonymous*, that it is a mere fabrication.

What is the precise standing of Dr. Ure in Glasgow, or how it was affected by this public event, I have no means of accurately determining. But it is not true, as averred by Mr. Pattison, that covered with disgrace, he was expelled from the city. I find from the periodical journals, that he continues to be in full communion with the scientific men abroad—retains his professorship—and that within the present year, he was honoured by the attendance of a large collection of the most eminent citizens at a lecture, in which he displayed his splendid experiments in galvanism.

That nothing appeared to his prejudice on the memorable trial, we have a right to infer from the fact of the divorce having been granted, as it is the established practice of the British courts of law, to withhold

such relief, where the parties are equally culpable. Even Majesty itself, we have recently seen, has been compelled to yield to this imperative dictate of justice, and inexorable usage.

Though not directly connected with my subject, it is perhaps right that I should say a word or two in reference to Mr. Pattison's boasted discovery, since my name has been, and will probably be still more, brought into discussion. Two or three months ago, I gave to Dr. Gibson a certificate, stating, that Mr. Pattison had acknowledged to me his familiar acquaintance with Colles's book, and that the fascia therein described differed essentially from the one claimed by himself, as he would show, when he entered on his dissections.

At this, I understand, he was greatly provoked, and has accused me of misrepresentation. In reply, I will repeat, that I have a most distinct recollection of the fact, having often mentioned it, and, that I am borne out by the testimony of Dr. Hays and Dr. Edward Barton, who heard him, on another occasion, avow his having read the book previously to his coming to this country.

There is, however, some circumstantial proof, which, while it sustains me, convicts him of a deliberate attempt, in another instance, to impose on us, and through us the medical public of this country.

That he claimed the discovery of the fascia when he first arrived among us, and has been compelled to relinquish it to Mr. Colles, is not denied.

Can it be credited, that any man in the position of Mr. Pattison, supposing himself the author of a discovery curious in itself, and of the highest practical import, for such he has proclaimed it, would not have consulted, and even diligently scrutinized all the authorities on the subject, and particularly the treatise of an eminent professor in a neighbouring college, on the very structure involving it? Why, too, was it not published in Europe? Certainly he has shown none of that sensibility which diffidently shrinks from the press. Nor can we refrain from inquiring, why the great European anatomists, Mr. Cooper, and Dr. Thomson, and Dr. Barclay, before whom he tells us he made the demonstration, and received an explicit recognition of his title to the discovery, have not alluded to it in their letters of introduction? Would they, I finally demand, have omitted so important an incident in the estimate of his character and pretensions? At all events, Mr. Pattison is hung on the horns of a dilemma, from which he cannot extricate himself. Conceding that Cooper and Barclay, and Thomson, and Dupuytren, did really confess the fascia to be a structure, prior to the illustration of Mr. Pattison, unknown to them, what becomes of the charge of ignorance, which he has arrogantly cast on Dr. Physick and the rest of the anatomists of this country relative to the subject?

The character and conduct of Mr. Pattison, I have now, perhaps, placed in sufficient relief before the public. It may possibly be asked, how Dr. Physick and myself came to countenance an individual of this description. The answer is plain, and can be given in one word. Confiding in the recommendatory letters of our friends, and his own plausible statements, we believed him guiltless of the imputed charges, and considered him, as doubtless many very honest people in Baltimore now do, cruelly persecuted.

It is only within a short period I have discovered, that the whole of the letters from *Scotland*, to Dr. Physick and myself, are of a date anterior to the *criminal affair*; and still more recently, I have had reasons to believe, that the writers of some of those letters have expressed their regret at giving them to a person who had proved so unworthy. Certain it is, and I make the statement on the authority of two most respectable men, who have lately returned from Glasgow, that Mr. Pattison is generally condemned in that city, and that it was spoken of every-where as a matter of astonishment, that he should have been so readily received into the society of this country.

The object of this address I hope will not be misunderstood. It is not to vindicate the alleged refusal to meet Mr. Pattison. Even if I had received a formal challenge, which I never did, as appears from the correspondence, and however pure his character might have been, I should have at once declined it. The disparity of our age, the inequality of our condition in society, the claims of a numerous family, and the obligation imposed by my public station, must have dictated this decision. It really would seem to me, under any circumstances, not quite fit to have introduced my course of lectures, with the spectacle of a duel. The parents and friends of the several hundred young men confided to our care, require of us very different things; and assuredly, had I yielded on this occasion, I should have had to encounter the heaviest censure, and perhaps a more decisive step from those discreet and elevated men, under whom I have the honour to hold my appointment. With Mr. Pattison it is entirely different. He is an adventurer with a tainted reputation, which he hoped to repair. What has he to lose? and to ruin the happiness of a family, we have already seen is one of his sports. Yet from his manner of receiving Dr. Horner's communication, there would appear to be some method in his madness, and,

Bobadil-like, he displays his valour only, where there is no possibility of danger.

I have now done with Mr. Pattison. Of the public, I sincerely beg pardon for obtruding on them such a communication. An appeal of this sort, I sensibly feel, is most derogatory, and I have long avoided it. Perhaps it was now unnecessary. Encouraged, however, by our forbearance, there seemed to be no end to the calumnies and misrepresentations raised by Mr. Pattison and his auxiliaries, at the expense of Dr. Physick and myself. As a private individual we knew his insignificance, and despised his malicious endeavours. Elevated, however, as he is, to a most respectable station, and sustained by the influence which it confers, it was thought that he had acquired some importance, and that the public mind should be enlightened as to his character and machinations.

N. Chapman.

Philadelphia, Nov. 5, 1820.

P.S. It would really seem impossible for Mr. Pattison, on any occasion, to adhere to the truth. An impression has gone abroad, and is now made the subject of a paragraph in the Baltimore papers—doubtless originating with, or sanctioned by him—that the prosecution against him for sending the alleged challenge, was instigated by myself and some others of our medical faculty, with the hope of detaining him here, to the injury of the school to which he belongs.

Twice did Mr. Biddle in open court, and once to Mr. Chauncey, *in the presence of Mr. Pattison*, declare, that the prosecution was his own act, in which I or others had no concern, directly or indirectly, and for which he assumed the entire responsibility. Nor is Mr. Pattison ignorant, that when Mr. S. F. Bradford, with the best intentions, voluntarily called on me, on the night of the arrest, to ask my interference for the suppression of the legal proceeding, I at once expressed my willingness to do so, if any mode could be pointed out to effect it, and that I gave assurance at the same time, in the event of the conviction of Mr. Pattison, I would instantly in person apply to the executive for his pardon.

COUNCIL, STUDENTS, AND PROFESSORS, OF THE LONDON UNIVERSITY.

To the Editor of The Lancet.

Sir,—I am most distressed to be obliged to inform you, that every engine has been put in play by the Council to crush the pupils who have demanded Professor Pattison's dismissal. Threats of action and imprisonment, and of the most unrelenting persecution, have now been made use of to oblige my fellow pupil, Dr. A. Thomson, to *withdraw* the memorial. His father has, I have reason to believe, threatened to disinherit, to disavow all connexion with him. But I am most happy to assure you, that I also know that there is not one of those pupils who will not endure any thing rather than give up the *national point* for which they contend:—*The undoubted right of demanding the dismissal of any teacher from a public school, who does not fulfil his compact with his pupils.* The threats, the entreaties, then, must be unavailing. These students have acted a noble and a manly part, which, while it is in true accordance with the spirit of the times, will only serve to endear them still more to the hearts of their fellow pupils. Gagged mouths will *never crowd* the theatres of the London University. If the Council execute their intemperate threats, the downfall of the University is certain.

Your obedient servant,

A Pupil of the London University.

University, Aug. 5th, 1830.

OBSTETRIC SOCIETY.

In a late Number of The Lancet, we took occasion to inquire what had become of the "Obstetric Society?" Dr. Ramsbotham, the hon. sec., has put forth a reply in the Yellow Journal for the present month. For the accommodation of our readers, we have expunged a' that is no' material to the stoory, but as the article thus abridged is still rather long, we must withhold comments until next week.

OBSTETRIC SOCIETY.

To the Editor of The Yellow Journal.

Sir,—As The Lancet appears to be rather restless on the subject of our Society, and as the members have no desire to encounter its point, I have been directed to furnish you with the following short account of our proceedings.

I am, Sir, yours, &c.,

F. H. Ramsbotham, *Hon. Sec.*

New Broad Street, June 1, 1830.

The Society was established in 1825, for the purpose of promoting obstetrical knowledge, and protecting the public from the great mischief produced by the indiscriminate practice of midwifery. It originally consisted of thirty-one members, (to whom none have been added), physicians and surgeons of obstetrical institutions, and lecturers on midwifery in London, a subscription of two guineas from each of whom has covered all its expenses.

The great object of the Society was to act in unison with the three medical corporate bodies, neither of which examined candidates in midwifery. A letter, dated March 20th, 1826, was accordingly addressed to each body, requesting to know whether they were disposed to obviate the causes of the calamities in question, stating that if they either could not or would not, the Society meant to appeal to the Legislature—suggesting, at the same time, that the ultimate purpose of the Society would be accomplished, if each body would inquire, through its examining board, into the extent of obstetric knowledge of each candidate who came before them, as that mode of proceeding would leave the relative situations of each corporation undisturbed.

The apothecaries replied first, and in their answer (bearing date April 4) they stated, that they were well satisfied of the existence of abuses occasioned by the indiscriminate practice of midwifery, and would be happy, if it were in their power, to render assistance in promoting the laudable object of the Society; but they were of opinion that their act did not give them any authority to superintend and regulate the practice of midwifery; they considered the subject well entitled to parliamentary interference, and stated their willingness to conduct examinations in midwifery, provided parliament would commit to them the responsibility. In the reply of the College of Physicians, on June 9th, the grand question was completely evaded: it merely consisted of a resolution to the effect that "the College was best satisfied when midwifery was practised by those who had been found, on examination before them, to be competent to the exercise of the profession at large by their knowledge and acquirements; that the delivery of women was an art of manual skill, and therefore in the province of surgery; and that the treatment of the diseases of pregnancy and the puerperal state was a part of the general practice of physic, and, as such, liable to the inquiry of the 'Censor's Board;' and, in the answer of the College of Surgeons, which was not received till July the 19th, four months after the Society's address was presented, the positions laid down by the Society were tacitly admitted as true, by the expressions "that the College were not invested with sufficient power to obviate the evils stated by the Society, to arise from the want of legislative regulations over the practice of midwifery."

The Society accordingly, in January, 1827, resolved to address the Secretary of State, but before doing so, renewed their application to the corporate bodies, apprising them of their intention.

The replies of the chartered bodies on that occasion followed each other more speedily, first from the surgeons on Feb. 17th, 1827, who stated that their College was instituted solely for the purpose of examining and attesting the capability of persons to practise the art and science of surgery; consequently, being solicitous that those persons who conduct the examinations should be particularly skilled in surgery, the College had excluded from the Court of Examiners those surgeons whose time and attention had been occupied in learning and practising the obstetric and pharmaceutical departments of medicine; that the College did not perceive how it could compel even its own members to submit to examination in midwifery; that no tribunal for examining and attesting the capability of persons to practise midwifery had yet been instituted; but that the College would willingly form a board of examination for the midwifery department of medicine, provided the government of the country deemed it necessary, and would give them the requisite authority for that purpose. On February the 22d, the apothecaries returned an answer, referring the Society to their former letter; and on Feb. 27th, the physicians replied, declining to give any more explicit answer.

A memorial was then forwarded to Mr. Peel (March 20th, 1827), with an account of these proceedings, a full exposition of the views of the Society, and a prayer that all candidates at the medical boards of the three corporate bodies should be compelled to be acquainted with, and examined in, midwifery; and, lastly, it declared that the members of the Society "could not allow themselves to be selected for the purpose of forming *a separate board for* the regulation of the practice of midwifery, as such a proceeding would imply a *partial* acquaintance with a profession which they had studied as a *whole*, and which they had practised as a *whole*, in common with the other members of the bodies to which they individually belong."

Four days after, a deputation waited on Mr. Peel, who said he approved, and admitted the importance of, the objects of the Society, and promised to refer the memorial to the three corporate bodies, whose subsequent answers were transmitted to the Society by Mr. Peel in July 1827.

In their official answer, the College of Physicians considered the examinations entered into at the College on diseases of women and children a sufficient test of the candidate's knowledge on those points, and the act of delivery an operation of a surgical nature. Yet the surgeons, in their reply, far from agreeing with the latter position, contended that, by admitting practitioners in midwifery into their council, they would weaken that respect the public now

entertains for, and the confidence it now has in, that council; they observed "they had hitherto elected as examiners such surgeons as they believed had, in the early period of their lives, been accustomed to pass their days in hospitals, and their nights in the study of their profession, and not in the avocation of a lying-in chamber. They, however, informed the Secretary of State that they had, since the Society's first application to them, passed a resolution, requiring certificates of attendance on two courses of lectures on midwifery from each candidate for a surgical diploma. The Society of Apothecaries, on the other hand, in their reply, considered the object of the Obstetrical Society as tending highly to the benefit, welfare, and happiness of the community, and to the usefulness of the medical profession." They "called the serious attention of the Secretary of State to the subject, and expressed a hope that some legislative measure might be devised, which would in future afford a security to the public that practitioners in midwifery were well educated in that branch of the medical profession, and fully competent to the practice of it." But, although perfectly convinced of the propriety and necessity of instituting examinations on this subject, they thought the powers they possessed did not authorise them to undertake such a duty.

A second memorial was then laid before Mr. Peel, bearing date March 21, 1828, in which the Society, after disposing of those replies, submitted to his consideration a plan for placing the practice of midwifery on a respectable footing, viz. that the Colleges of physicians and surgeons should be recommended to annul their respective bylaws, by which the Fellows of the former and the members of the Court of Examiners and Council of the latter College, are precluded from the practice of midwifery; and that they should also be recommended to examine all their candidates on midwifery, as well as on the other branches of medicine and surgery: while, to the Society of Apothecaries, also, authority should be given to institute examinations on midwifery.

In January 1829, the committee of the Society was informed by one of its members, that he had seen Mr. Peel, who promised to refer these propositions to the corporate bodies for their reconsideration, and to forward their replies.

After waiting five months, the chairman wrote to Mr. Peel, and received from that gentleman a note, inclosing a paper which had been delivered to him a few days before by the president of the College of Physicians. In this paper the question was approached for the first time with something like earnestness by the College of Physicians, the president having briefly adverted to the history, constitution, and objects of the College, said, "That they could not repeal their by-laws respecting practitioners in midwifery; but proposed, in the name of the College, that, as often as any physician offered himself for examination, preparatory to his license to practise, and declared his intention of adding midwifery to the practice of physic, he should be examined before the Censor's Board, by some licensed physician at that time practising, or who has practised midwifery, who should be called in as an assessor for the purpose of inquiring into his qualifications in the manual branch of that art." No reply has up to this time been received by the Society from the College of Surgeons. The Company of Apothecaries, however, in accordance with their declaration made both to the Obstetric Society and Mr. Peel, have evinced a strong desire to forward the views of the Society; the chairman of the examining Board of that body, called upon the secretary of the Society in August last, to inquire how far the Society had obtained their objects in regard to the Colleges of Physicians and Surgeons, and in what way the Apothecaries' Company could further assist the Society. He said they had resolved to require certificates of attendance on two courses of lectures on midwifery and the diseases of women and children, from each candidate. They were still of opinion, that their Act did not give them the power to examine on midwifery; they would be willing to undertake any duties of examination in midwifery that the legislature might think proper to require of them; but they were all agreed, that any such extension of their Act must come from the government, on the suggestion of the Obstetric Society, and was not to be considered as solicited and promoted by the Apothecaries' Company.

In consequence of this spontaneous declaration on the part of the Apothecaries' Company, the committee of the Obstetric Society addressed Mr. Peel once more, calling his attention again to the objects and wishes of the Society, and to the determination of the corporate bodies; and ventured to request the Secretary of State to obtain for them the opinion of the law officers of the Crown as to the power possessed by the College of Surgeons and Apothecaries' Company, with regard to examinations in midwifery; in order that, if this opinion should be favourable, the two bodies first mentioned might at once act upon it; but, should it prove unfavourable, the Society then hoped the right honourable Secretary would concede to these two bodies the requisite powers for that purpose, and at the same time sanction the introduction into the House of Commons of a Bill rendering it

penal for any man to practise midwifery who is not a legally-authorised physician, surgeon, or apothecary.

This letter called forth from Mr. Peel, in Dec. 1829, an answer to the effect that, if the Apothecaries' Company were uncertain as to the full extent of the powers which they legally possess, and were desirous of obtaining a legal opinion on the point, he must leave it with the Board to exercise their discretion in respect to taking such an opinion. He must decline making a special reference from the Home Department to the law officers of the Crown upon the subject; neither could he undertake the introduction into the House of Commons of a Bill such as was proposed by the Society. An abstract from Mr. Peel's letter was forwarded to the Company of Apothecaries, and a reply from the secretary to the Court of Examiners, was received by the Society in the beginning of February of this year, inclosing the opinion of the attorney and solicitor-general that the Court of Examiners of the Apothecaries' Company have no power by the Act of Parliament to examine in the art of midwifery, which is, in no respect, comprised in the Act.

At the next meeting of the committee, it was resolved, that the chairman of the Society should wait upon Mr. Peel as a deputation from the Society, for the purpose of forwarding the objects in view. This resolution was complied with: the conversation was principally directed towards the offers made by the Colleges of Physicians and Surgeons; and the opinion of the attorney and solicitor-general respecting the power possessed by the Society of Apothecaries under their Act was brought forward.

The Society was next called together on the 18th of this month, and it was determined that the three corporate bodies should be again addressed. It was suggested to the College of Physicians, that the regulation they proposed should be extended to all candidates who present themselves for a license at the Censor's Board, instead of being limited to those only who, at the time of their examination, might declare their intention to practise midwifery: for it appeared to the Society, it might happen that candidates who had no intention to practise midwifery when they applied for a license, might be inclined, at a future period, to add that branch of practice to the practice of physic; and that all physicians who were not precluded by the established rules of the College from practising midwifery, ought to prove before competent judges their fitness for that duty. To the College of Surgeons, the Society expressed their satisfaction at the regulations they have adopted, requiring from their candidates certificates of attendance upon lectures on midwifery, and trusted that they would see the necessity of instituting examinations by their own examining Board on this branch of surgical science: and to the Society of Apothecaries they offered their thanks for the attention which their former letters had received from that Society, and expressed their desire to render their assistance to them in endeavouring to obtain an Act of Parliament, authorising the Society of Apothecaries to examine those candidates who came before them, as to their qualification to practise midwifery. The Society now wait for any other communication from the three corporate bodies.

It must be observed, that on the institution of the Obstetric Society, it was resolved that its objects should embrace the regulation of the practice of midwifery, with regard to female as well as male practitioners; but it has been thought proper to direct the attention of his Majesty's Government at present, only to those persons practising midwifery, over whom the medical bodies ought to possess some control: no mention has, therefore, been made as yet, of the injuries to which the poorer classes of the community are exposed, from the mismanagement of women imperfectly educated in the duties of their profession. The Society, however, has not been unobservant of such dangers, and is most desirous that some means may hereafter be adopted to correct this grievous abuse.

It is also to be remarked, that the Society was originally formed with the sole intention of ensuring the welfare of the public, as far as midwifery is concerned, and that at one of their first meetings it was resolved, that when the object of regulating the practice of midwifery shall have been carried into effect, its existence shall become extinct.

NOCTES AMBROSIANÆ.

[*Blackwood's Magazine.*]

English Opium Eater.

I believe, Doctor, that the use of opium is frequent among the working classes in manufacturing towns?

Modern Pythagorean.

It is, Sir.

English Opium Eater.

Do you approve of it?

Modern Pythagorean.

I should wish to speak with diffidence—with deference—in the presence of a man of distinguished genius, who is himself a living and an illustrious proof that opium, even when taken in quantities that, before the publication of the "Confessions," would have seemed, to physicians, in the country,

at least, incredible—of the effects of the distillation from the poppy. Yet, that these effects are always pernicious, and often fatal, when the use of opium has been carried to any excess is—I speak humbly—in my opinion, the general rule; not weakened, perhaps, by one splendid exception. There are, in the human constitution, such extraordinary idiosyncracies, that no physician will be so rash as to assert that some there may not be—and one such, Sir, allow me to say, must be yours—with which opium takes kindly, and acts so as to induce over the mind, not weakness and obfuscation, but strength and brightness of all the intellectual powers. I should assuredly think so—reasoning either *a priori*—if, indeed, such reasoning can be applied pure in medical science—or from induction.

English Opium Eater.

Allow me to say, Sir, that the opinion you now express is entirely that which I should have expected from the author of the "Anatomy," one of the most ingenious and philosophical treatises which have, in our days, been contributed to medical science.

Modern Pythagorean.

A mere trifle, in my estimation, I assure you; nothing but an humble thesis.

English Opium Eater.

Will you be so good, Sir, as to inform me, from your own experience, whether you think opium, or spirituous liquors,—taken for the same purpose,—we shall at present suppose, intoxication,—be the more hurtful? I put the question, Sir, in connexion with the subject introduced a few minutes ago by Mr. Christopher North, and so very picturesquely painted by Mr. Mullion—on Temperance Societies.

Modern Pythagorean.

Let me confine myself, Sir, first to the moral question. Spirituous liquors irritate the blood and the brain, and excite to wrath, rage, fury, and the most mortal quarrels. Hence, many, most, of the violent crimes that bring miserable men to the gallows. But, Sir, no instance has come within my knowledge of an opium eater, at least in Great Britain or Ireland, having been hanged.

Shepherd.

A capital argument, and quite unanswerable.

Modern Pythagorean.

Again, opium, whether in pill or drop, is, I believe, in this country, almost always taken in secret, or in parties of two or three; at least, I never knew nor heard of any member of an Opium Club. Drunkards congregate together,—and, thence, by sympathy,—intenser corruption. Thus disease and delinquency are brewed together, and what have you but a poisonous scum?

English Opium Eater.

Sir, you speak well and wisely, and, therefore, I ask, Would not, in your opinion, opium be a safer substitute to the poor, for spirituous liquors?

Modern Pythagorean.

From the premises I have laid down, I leave a gentleman of your logical powers, for yourself to draw the conclusion. But, I can have no hesitation in saying, that, by the use of opium, such as it is, to my knowledge, and I confine myself to that, in this country, less evil, far less, nay, comparatively little evil, is done to the morals of those among the lower classes who are addicted to that drug, than among the lower classes by spirituous liquors to drunkards. This is to be kept in mind, that the number of those who take opium to excess is comparatively small indeed; nay, among the poor, I never knew one such case. Whereas, drunkenness, fatally, is a national vice; with us, almost at once an epidemical disease, a contagion, and an infection.

English Opium Eater.

But, my dear Sir, may it not be, that the moderate use of opium among the working classes in manufacturing towns,—and you seem to believe that there it is rather immoderate,—is, in a moral view, preferable to the use of spirituous liquors, which, you rightly say, is there so prevalently immoderate as to deserve the names you have now so eloquently inflicted upon it, and the fearful character you have drawn of its effects in your admirable little book?

Modern Pythagorean.

This I will say, Sir, that any means of making the wretched forget or endure their miseries, used in the shape of any other drug, must be better, and that none can be so bad as spirituous liquors used to such an excess as to make men and women habitual drunkards. And this I say freely, without at all compromising my opinion, that, among the poor, the use of opium is an almost unmixed evil.

English Opium Eater.

Pardon me, Sir, but in many cases, when taken medicinally, it may not be an evil at all; for mark my word, *medicinally*. And who can say, when eighteen hours' toil out of the four-and-twenty have bowed down both soul and body to the dust, a few drops of laudanum may not be in the best term a blessing? It may not be what physicians,—what even you, Sir, in your enlightened humanity,—would prescribe; but still, in the destitution of other, end, perhaps, better medicine, in the destitution of sustaining and restoring food, it may act as a charm, and not as a baneful charm, on those whose heartstrings are as weary as their backs,

loins, and reins, and are thus lulled into endurance and oblivion.

THE LANCET.

Opium, *medicinally*, to the poor, who toil eighteen hours out of the twenty-four! To lull them into endurance! To give them sleep! Know ye not, that their nightly slumbers are already as oblivious as though they supped on the stewed leaves of the deadly nightshade! The task consists in awakening them to the resumption of their daily and endless toils. The man who would recommend opium to the use of the labouring classes, deserves to be fifty times smothered in a bed of poppies. Behold the squalid and shapeless creatures who swarm in myriads in our crowded alleys and courts; behold their flabby limbs, cadaverous cheeks, and leaden eyes,—the hellish works of buckthorn and diacodium—sleepy, poisonous syrups. Reared, with paralysed nerves, with blunted sensibilities,—with half-made, enervated, half-nourished bodies, these creatures, in after-life, need not the Lethean influence of opium to make them forget their wretchedness. They neither reach the stature nor exhibit the intellectual attributes of manhood. By cold destitution, they are, from infancy, dead to every virtue, and, from their ceaseless labour for bread, are deprived of every hope but that of the grave. Would you add to the pangs of an aching heart, and the tortures of half-cramped limbs, the frightful phantoms of a bewildering drug? Believe not, however, that I give a preference to the use of spirituous liquors amongst the labouring classes. Think not that I would thus add liquid flame to the already overflowing furnace of vice. If you would make them happier, and give strength to their bodies, repeal the tax upon malt, and the starvation tax—the tax upon their stomachs—their hearts—their blood—the tax upon wheat. Give them food, give them knowledge, and teach them the value of rational liberty. Opium—the subtle, crafty, sleeping draught of tyrants; the courted charm of worthless, sensual, slaves! To make the people exert themselves to improve their condition, pain, destitution, and wretchedness, must be their stimulants. He who would blunt their sensibilities, wishes to perpetuate both their degradation and their misery, and is the bitterest enemy of the human race.

SHEPHERD.

You has exhausted the subject.

SOCIETY OF "GENERAL PRACTITIONERS."

[We continue to receive a number of letters relative to this "Society." All have been decidedly hostile to it with the exception of one, which we publish. The letter signed *F. F. F.* is a fair sample of those that are against the institution.]

To the Editor of THE LANCET.

SIR,—Your objections to the Society of General Practitioners are, in my opinion, irrational and groundless. What would you have? Are you anxious that the compounder of drugs, and the half-guinea accoucheur, the half-educated, untiled, general practitioner, should be placed upon a level, should hold the same footing in society as, and be equally respected with, the well-educated possessor of a medical degree? Sir, you are doing mischief. You are holding out hopes that never can, and ought not to be, realised. The general practitioners are right in framing a society for themselves, as they cannot be permitted to associate with physicians upon equal terms. They are, in every respect, as Mr. Brodie has properly termed them, *subordinate* practitioners, and it is for the interests of society that they should not ascend another step. Through your misdirected zeal and exertions, they now hold an unmerited place in the public confidence. Pray leave them to take their own course, and do not attempt to mix them up with PHYSICIANS, whose learning, character, and titles confer dignity and honour upon the profession.

I am, Sir,
Your obedient servant,
MEDICUS.

Half-moon Street, Piccadilly,
Aug. 3.

To the Editor of THE LANCET.

SIR,—I am a surgeon, a surgeon in general practice, of twenty-five years standing, and I can fairly say that nothing, during the whole of that time, has occurred, which has given me equal pleasure, with your remarks upon the Society stupidly termed that of the "General Practitioners." Mr. Gaitskell is a gentleman of great respectability, and I know two or three of the committee who are men of high honour, but they are misled, and, in my opinion, have fallen into the snare of some designing, crafty physician. Why should we forsake the title given to us by our diploma, unless for a better? If the physicians will not associate with us in their colleges, and in their medical societies, let us refuse to mix with them in consultation, and we shall soon see which branch of the profession has the most power, which has the most talent, and which of

them enjoys the largest portion of the public confidence. If you continue your efforts in our favour, emancipation is certain. Nothing would give me greater pleasure than to join the "Society of General Practitioners," in a comprehensive scheme of reform, but I cannot consent to form one of a body whose existence would only tend to prolong our degradation, and to strengthen the hands of those who are opposed to our progress. Let the Society at once abandon its project, and not induce well-meaning men to incur unnecessary expense.

Your constant reader, and an unfluctuating reformer,

W. F.

To the Editor of THE LANCET.

SIR,—A correspondent to THE LANCET, of July 24th, states, that the projected Metropolitan Association of General Practitioners "originated among the stewards of the late proposed medical dinner."

As a steward, up to the period immediately anterior to the humiliating failure of the proposed dinner, I for one beg to correct the mis-statement of the Committeeman, that the Society *to be*, emanated from the Stewards. In disclaiming the imputed honour, I am competent to perform the like good office for Mr. Harwood. That the "Society" is the work of the balance of the Stewards I am not able to deny,—I am only anxious to decline the distinction implied in the letter of "one of the Committee." I am, Sir,

Your obedient Servant,

W. A. WALFORD.

OPERATIONS AT THE DERBY INFIRMARY.

To the Editor of THE LANCET.

SIR,—As one of the readers of THE LANCET in this town, I was surprised to observe in your last number a statement by Mr. Gisborne, of what took place on his being compelled to retire from the operation-room of the Derby Infirmary. To those acquainted with what has recently passed between some of the medical officers of that Institution, and others of the same profession, the statement itself conveys its own answer. But as the communication in question does not explain *the feelings* which have long been entertained by your correspondent Mr. Gisborne, and the operator Mr. Godwin, towards each other, I am induced to offer a brief statement of what I believe to be *facts*.

To all unprejudiced minds, and to those who had no pre-existing knowledge of the heretofore attempts to vilify (no doubt by the same hand) the senior surgeon, it would appear that Mr. Godwin had committed not only a dereliction of courtesy due from one gentleman to another, but had been guilty of a most heinous offence in acting upon, by virtue of his office, an *indisputable right*, a *right* not only possessed by every hospital surgeon throughout the kingdom, but a *right* founded on the best views of equity and justice. Now, it is well known to those interested in the success of the Derby Infirmary, who attend the weekly board, and to all other matters involving the welfare of the Institution, that anonymous charges have been preferred,* and the professional reputation of the surgical department grossly calumniated. That you should have permitted the columns of your highly-talented and widely-circulating journal to have been the vehicle of language so deeply reprehensible, the best friends of the liberty of the press sincerely regret. As for the accusations of illiberality against the late committee for drawing up the new rules, they certainly cannot apply to the present case; for it is to that committee the practitioners of this town are indebted for the recommendation to the surgeons of the Infirmary to extend their liberality and permit the medical public to witness their operations, when not attended with inconvenience to themselves. This word "inconvenience" has been by Mr. Gisborne much carped at, yet I am not aware that one more comprehensive could have been adopted by the committee in conveying the sense in which they were anxious their recommendation should be considered; namely, to accommodate the medical profession *generally*, and to preserve at the same time to the officers of the charity, the exclusive privilege against the admission of improper persons; a privilege which, in common fairness, ought not to be complained of. On this rests the gravamen of the story, which I look upon as nothing more than the common result of cause and effect: a proper punishment for improper conduct. And I hope, when your correspondent ventures again before the public, he will approach his subject with more temperance, more candour, more reflection, and more truth. Yours, &c.,

FAIRPLAY.

Derby, July 20th, 1830.

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* See Expositor's Letters.

NEGLECT OF THE LECTURERS AT THE SCHOOL IN WINDMILL-STREET.

To the Editor of THE LANCET.

SIR,—As the ensuing Medical Session is fast approaching. I take the liberty to address you regarding the conduct exercised towards the Great Windwill-street Anatomical Students by Messrs. Mayo and Hawkins. I entered as a perpetual pupil to their lectures in 1828, and fully expected, of course, that the agreement held forth in the prospectus would be fulfilled. But, Sir, you will be surprised to learn that Mr. Mayo absented himself every Wednesday but one (the day on which he delivered an Introductory Lecture), during at least two thirds of the courses for 1828-9 and 1829-30; and not more than a dozen times, if so many, in the whole of that period, did he think proper to give timely notice to his pupils, some of whom came from a considerable distance (two, to my knowledge, from near the Regent's Park) who were consequently frequently disappointed; and strange to add, he never permitted his late colleague, Mr. Hawkins, to supply his place; on which account chiefly, I believe, the class thought lightly of Mr. H.'s abilities; for when he lectured, especially in 1828-9, for weeks, I might add for months, scarcely a dozen pupils, and frequently not more than five or six, presented themselves.

Towards the close of the last course of Lectures, I, with several fellow-students, was deprived of witnessing the operations for cataract, amputations, &c. (having had Surgical Lectures to attend elsewhere, and for which we required certificates) upon a subject purchased expressly for the occasion, but which, *nolens volens*, was conveyed to Mr. Brodie's surgical class, where Mr. Hawkins invited us, in all probability either to clothe a few of the empty benches, or as substitutes for Mr. B.'s offended pupils, the majority of whom had ceased to attend upon Mr. Hawkins's evenings. These are fit gentlemen for the praises of a venal press!

Obediently yours,

A PERPETUAL PUPIL.

Windmill-street, July, 1830.

HOTEL-DIEU.

CASE OF WOUND OF THE HEART BY A FRAGMENT OF A RIB.

AUBIN, ætat. 23, of a vigorous constitution, was, on the 30th of May, 1830, when in a state of intoxication, suddenly pressed between two carts meeting each other in opposite directions; he was taken up senseless, and when brought to the hospital showed no signs of life; when the body was examined the next day, the chest was covered with ecchymoses; the eighth and ninth left ribs were fractured, and their fragments forcibly depressed; the cavity of the left pleura was filled with a large quantity of dark-coloured liquid and grumous blood, the diaphragm pushed downwards, the left lung upwards and inwards; the pericardium contained a small quantity of black coagulated blood; and, at its left side, there was an aperture about two inches in length; the heart was rather large and firm, and exhibited at its posterior surface a transverse wound, which corresponded exactly to that in the pericardium; it was an inch and a half in length, and penetrated into both ventricles; its edges were slightly ecchymosed, but rather smooth, as if they had been made with a blunt knife. The costal pleura was lacerated by the fragments of the eighth rib, the anterior portion of which was still found protruding into the cavity, and was rather sharp, being fractured obliquely; by it, the wound in the pericardium and heart had unquestionably been inflicted. The fragments of the ninth rib were not displaced; the lung was ecchymosed, but as well as the diaphragm, without any wound; the left hypochondrium contained extravasated blood, the origin of which proved to be a transverse lacerated wound of the spleen, evidently from the violent contusion. The liver and all the abdominal viscera were rather pale and bloodless.

HOSPICE DE CHARENTON.

FROM the reports on this institution, it appears that the months during which the largest numbers of lunatics are admitted, are, June, July, and August; the smallest number of admissions take place in January, November, and May. Most of the lunatics are between thirty and thirty-five years of age; about half of them are unmarried, and the greater number of them are females. The admission of married men or widowers is rather unfrequent. The army furnishes a great number of lunatics; and the number of officers is far greater than that of privates. In male lunatics the mental derangement is mostly brought on by domestic troubles and reverses of fortune; in women, jealousy, disappointed love, and religious excitement, are the most frequent causes. More women recover than men; and the period between the twenty-fifth and thirty-fifth year appears to be the most favourable with respect to the treatment.—*Jour. Univers. d. Sc. Med.*